

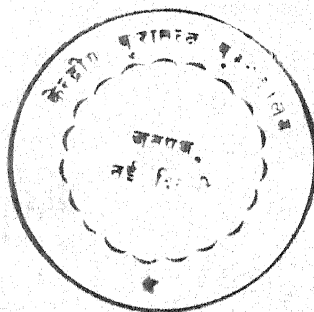
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REVIEW

Ācāryavandana D. R. Bhandarkar Birth Centenary Volume.

—S. N. Ghosal

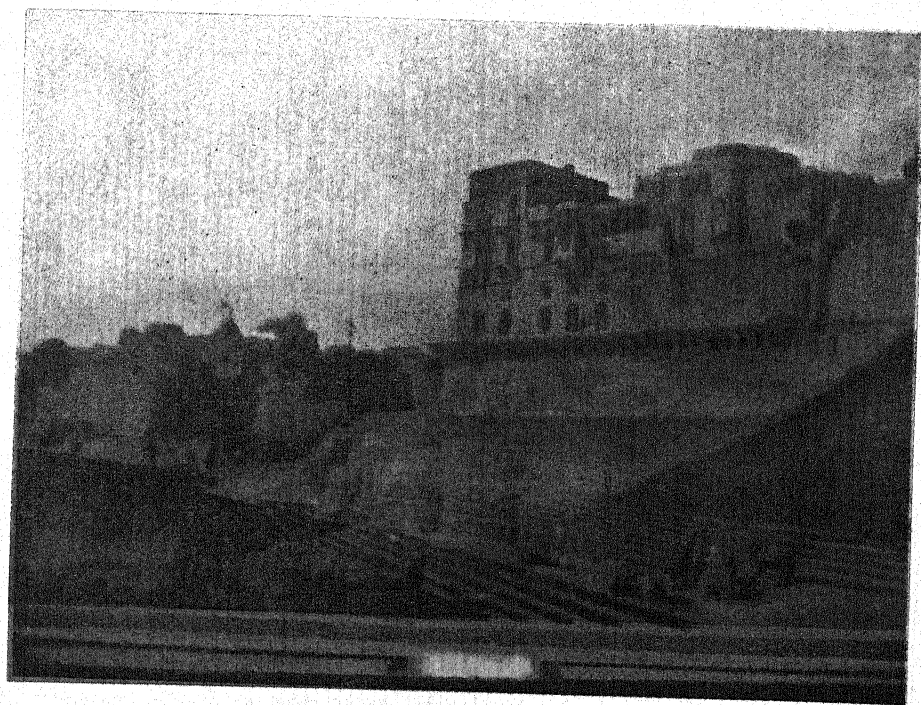
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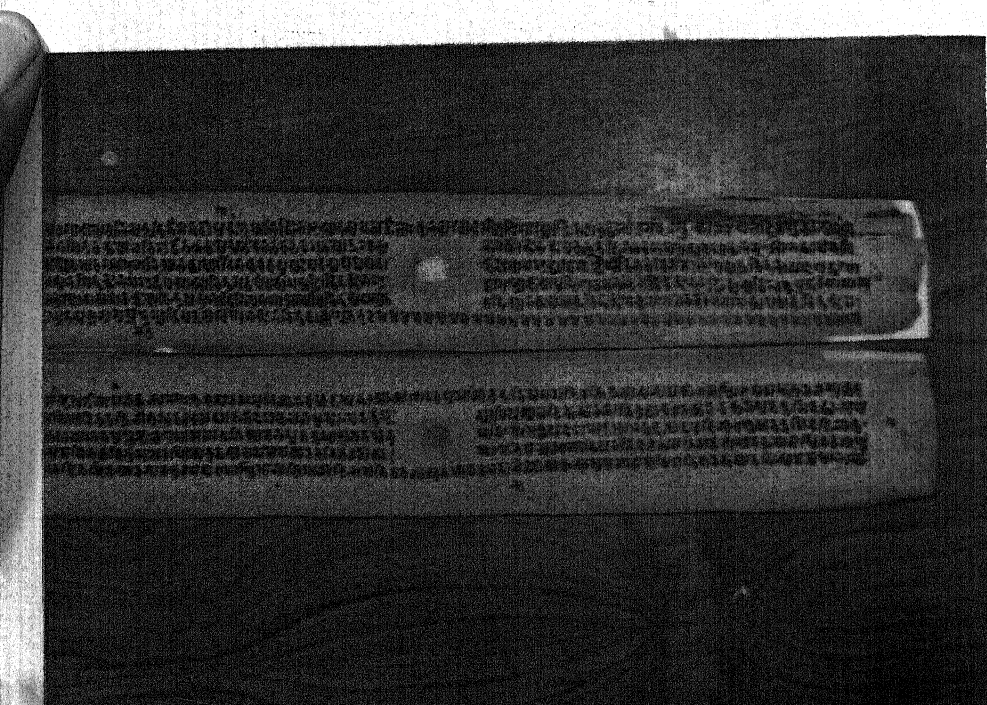
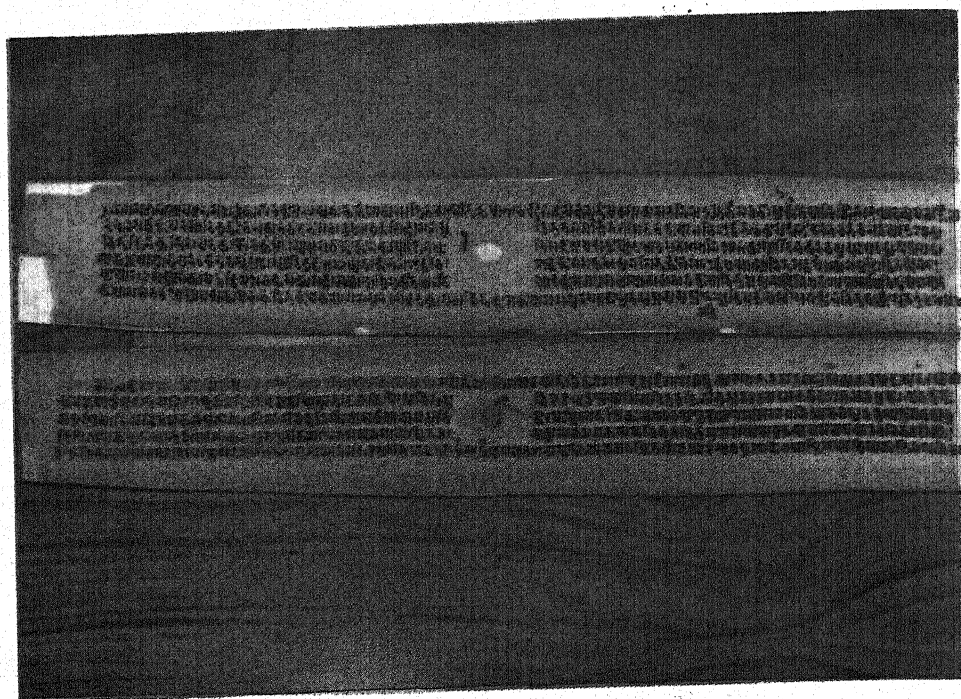
Bottom : Jameut Tawarikh

This volume of the Journal contains several coloured plates from the illustrated manuscripts in the possession of the Asiatic Society.



Ghat at Benares

Painting by Daniell





81342

IMPORTANCE OF EARLY INSCRIPTIONAL RECORDS
AND BUDDHIST MONUMENTS PRESERVED
IN COLLECTIONS AT CALCUTTA

GUSTAV ROTH

The oldest inscriptional records on the history of Buddhism in India are preserved in the Inscriptions of Aśoka (c. 275-235 B. C.), and later on, of substantial historical value are the inscriptions of Mathura (c. 1st to 2nd cent. A.D.). The earliest representations of art and sculpture, which reflect early Buddhist traditions on stone railings were found long time ago around the ruins of an ancient stūpa (c. 2nd cent. B. C.) at Bharhut. They were transported to the Indian Museum at Calcutta, where they can be conveniently studied.

The inscriptions of Aśoka do not say anything about a Buddhist Canon, or refer to any written sacred traditions on the subject. Only the so-called Calcutta-Bairat Minor Rock Edict of Aśoka which begins with *piyadasī lājā māgadhe saṃghaṃ abhivādetūnam* gives a list of seven titles which read : *Dhamma-Pāliyaṇi : Vinaya-samukāse, Aliya-vasāṇi, Anāgata-bhavāni, Muni-gāthā, Maneya sūte, Upatisa-Pasine, Laghulovāde*, which are recommended by the king. The question arises : Were they made available to Aśoka in a written form ? Aśoka does not refer to the Four Noble Truths, and also not to the twelve Progressive Productions (Pratītya-samutpāda). He also does not mention any particular Buddhist school.

Reference is made to them only later, for the first time, in the Mathura inscriptions : Five references to the Māhasaṃghikas, while the Dharmaguptakas, Sarvāstivādins, Sthaviras, and Vātsīputriyas are only mentioned once each. This clearly shows that Buddhist activities had established themselves in western regions, which had its effect on the formation of a type of Buddhist Prakrit, leading to a transitional type of language, a Prakrit-cum-quasi-Sanskrit, also called Buddhist Hybrid Sanskrit, which the Mathura inscriptions and the scriptures of the Mahāsaṃghika-Lokottaravādins, in particular, share.

Let us return to the Calcutta-Bairat MRE, which, according to a note of Hultzsch, p. XXV, is preserved in the Asiatic Society of Bengal, whose Bicentenary Celebrations are being held to-day.

of view of the language used in it, which may be called Old-Ardha-māgadhi (Amg), a type of Prakrit language, already composite in its nature, as the name indicates. We have here the eastern Old-Amg employed, though the place of its finding is located in the West, near Jaipur in Rajasthan ! We should remember that Old-Amg had become a language of administration through Aśoka, and of religious reform movements in Magadha, like those of the Jinas, on supra-regional standards, as Magadha was the basis of the expanding power of mighty rulers during the sixth and third centuries B.C.

Codifications of Buddhist Canons, based on written records, seem to have started after Aśoka in the West, North-West and the South of India, not in the Magadha region. During Lord Buddha's time, the disciples close to him did not find it necessary to commit the Buddha Word to writing, which they learned by heart. The accounts of the Councils held at Rājagṛha (c. 5th cent. B.C.) and at Vaiśālī (c. 380 B.C.) do not say anything about written records of Lord Buddha's Dharma.

Apparently the need, to take the sacred teachings down to writing, based on an established Canon, was felt by those monks, who were operating far away from Magadha, the centre of Buddhism.

The paper is concluded by remarks on the Bharhut reliefs, (c. 2nd cent. B.C.), with reference to early Buddhist literature, including a note on the significance of the bell friezes on the covering planks on top of the stone railings, where bells are seen hanging on strings (*ghaṇṭiyā-jāla*), which are often mentioned together with a row of bells (*ghaṇṭāvali*) in the Varṇakas (vannao) of the Jaina Canon.

A complete, well-prepared photographic documentation of the Bharhut railings is a desideratum of the highest order !

Additional Notes

Regarding the identification of the seven *Dhamma-paliyāyāni* "Expositions of the Dharma" see E. Hultzsch, *Inscriptions of Asoka*, Oxford, 1925 (Reprint : Delhi—Varanasi, 1969) p. 174, n. 1. With reference to *Vinaya-samukāse*, No. 1, he informs us that A. J. Edmunds (*Buddhist Bibliography*, San Francisco, 1904) identified it with Buddha's First Sermon. Nos. 2 and 3 occur in the *Anguttara-Nikāya*, Nos. 4-6 in the *Sutta-Nipāta* and No. 7 in the *Majjhima-Nikāya*.

É. Lamotte, *Histoire du bouddhisme indien*, Louvain 1958,

pp. 256 ff., calls the Calcutta-Bairat MRE "l'édit de Bhābrā" (see Hultzsch, Introduction, o. c., p. XXV. Lamotte renders *Vinaya-samukkasse* here "l'Éloge de la discipline" and comments : "on peut penser à un éloge du du Prātimokṣa, tel qu'on en trouve dans Anguttara (I, pp. 98-100)."

When we remember that the essentials of Lord Buddha's Words are included in the Pali Vinaya : the twelve Interdependent Progressive Products *paṭicca-samuppāda* in Mahāvagga 1 (Oldenberg edition), The Eightfold Noble Path—*ariyo aṭṭhangiko maggo* in Mahāvagga 10 (ib.), the Four Noble Truths—*ariya-saccam* in Mahāvagga 10-11 (ib.), which are the most prominent points in Lord Buddha's doctrines of salvation, of which we have a parallel in Mahāvastu III, pp. 331-333 (Senart's edition)—the Mahāvastu belonging to the Vinaya of the Mahāsāṃghika-Lokottaravādins—, Edmunds' suggestion to connect *Vinaya-samukkasse* of the Calcutta-Bairat Aśoka Inscription with the essential doctrines of Lord Buddha, embedded in the biographic portions of the Vinayas, deserves our attention. *Samukkasse* Sk. *samutkarṣaḥ* means "eminence". Thus, I translate tentatively *Vinaya-samukkasse* "The Outstanding Topic (contained) in the Vinaya" which refers to the complex of the eminent doctrines, referred to above.

The arguments of Edmunds are not available to me at present. However, as the other titles are also included portions of bigger groups of texts, it is likely that *Vinaya-samukkasse* just alludes to the most eminent insights connected with the Lord's Awakening to Buddhahood, and his first sermon in the grove of deers at Varanasi.

Aśoka, who was interested that monks and nuns, and also laymen and laywomen should constantly listen (!) to the expositions of the Dharma and reflect on them—*abbhikkhinaṃ suneyu cā upadhāeयū cā*, will have been advised by a monk regarding the seven titles.

Regarding the language of the Calcutta-Bairat MRE, we can say that it has the characteristic features of the Old-Ardha-Māgadhi Prakrit, close to the language of the pillar edicts and the Dhauli and Jaugada R. Eds. of Asoka : Nom. sg. of *a*-stems ends in *-e* instead of the Sanskrit ending *-aḥ*, e. g. *Māgadhe* for Sk. *Māgadhaḥ*, *gālave* for Sk. *gauravaḥ*, *prasāde* for Sk. *prasādaḥ*, *-pasine* for Sk. *praśnaḥ*. Nom. sg. neuter also ends in *-e*, e. g. *-sūte* for Sk. *sūtram*.

Another striking feature is the nom. pl. of *a*-stems which end in *-āni*, e. g. *dhmma-paliyāyāni* = Sk. *dharma-paryāyāḥ*, *aliya-vasāni* =

Sk. *ārya-vaṃśāḥ*, a specific feature of Old-Amg, to which H. Lueders has drawn our attention since long.

Typical for Old-Amg and Mg as well is the consequent use of *la* instead of *ra*, e. g. *lājā* for *rājā*, as we read in the Girnar Rock-Edicts.

The Calcutta MRE offers us an absolutive verb form ending in *ūṇaṃ*, so in *abhivādetūṇaṃ*, which is unique in the inscriptions of Asoka. We find in the Śaurasenī and Māgadhi of the dramas frequently Absolutive endings in *-tūṇa*, *-ūṇa*, see also Amg *uvaunji-ūṇaṃ*, *hoūṇaṃ*, *namiūṇaṃ*, quoted by Pischel §585 (see for reference R. Pischel, A Grammar of the Prākṛit Languages, Translated from German by Subhadra Jha, Motilal Banarsidass, Delhi etc. 1981). Thus, *abhivādetūṇaṃ* of our Calcutta-Bairat MRE is the oldest evidence of an absolutive form, which later becomes dominant in the Jaina Mahārāṣṭrī.

Of special interest is the treatment of final *m* before enclitic *eva* in *hevaṃmevā*, because this form explains *evām eva*, for Sk. *evam eva*, which frequently occurs in the AMg passages of the Jaina Canon. In *evām eva* simply a substitute lengthening has taken place. Thus, this Aśoka edict offers us with *hevaṃmevā* the predecessor of later *evām eva*. The initial *h* in *hevaṃmeva* is to be taken for the emphatic *h*. *Hevaṃmeva*, not *hevaṃmevā*, is recorded in Dhauli, Sep. I, 13, Jaugada, I Sep. II, 4, Allahabad VI, 2, see Hultzsch p. 94, p. 115, p. 158.

For Amg *evām eva*, *kipām eva*, and other examples, see Pischel § 68.

INDIAN DENTAL ANTHROPOLOGY IN RETROSPECT AND PROSPECT

V. RAMI REDDY

I. Scope of the subject

The contemporary physical anthropological and human population genetic researches have been primarily aimed to expound the nature of biological variations in different human populations in the understanding of the ongoing evolutionary process. But the systems used to be investigated varied from time to time based on the technological development as well as the nature of the subject. Human dentition is one such system in this context which is of special interest and occupies important place since longer periods. The special interest evinced on dentition may be due to its diachronic capability, to know about our species and racial origins, ease of direct comparison with living as also past populations facilitating a much greater time depth in micro- and macro-evolutionary investigations and number of synchronic purposes. Moreover the teeth are the hardest and most durable of all parts of the body, and hence account for a large proportion of the human and prehuman fossil remains available for study. As a matter of fact, virtually all fossil forms of primates now known are represented by teeth which as one of the anatomical systems help in understanding the relationship between the different groups of primates. Teeth are readily accessible in the living populations. They incorporate limited and recognisable environmental effects (Turner, 1967) and therefore have proven to be the best epigenetic tool in the study of genetic admixture, dental morphology, and in establishing biological relationships between the living and fossil human and non-human primates. They are the least biased to subjectivity unlike other anthroposcopic traits regularly studied.

Thus with the unique qualities that make them valuable for evolutionary as well as for other biocultural studies, the teeth have found an esteemed place in the subject of physical anthropology as a separate branch called 'Dental Anthropology', a term used as early as 1900 when the subject gained academic and research importance (Turner, 1978), although its roots lay in the seventies

of the 19th century as shown by a number of investigations. The different aspects that can be studied under this sub-branch of Anthropology of interdisciplinary and international character are morphology, metrics, health, evolution, growth, genetics, usage, forensics and ethnographic treatment—all serving as research tools and areas of academic and applied studies.

The teeth in view of their advantageous nature in physical anthropological and genetic investigations are studied by the methods of direct examination, radiography, photography, and dental impressions and casts which form a permanent record for observation and study of any number of dental morphological features of anthropological interest. These different techniques can be applied not only to the individuals of living populations but also to those represented by skeletons of individuals of the past ranging in antiquity from recent years to historic-protohistoric-prehistoric time periods.

The abundant published literature available on the Southeast Asian, East Asian and Pacific populations demonstrates the existence of similarities and dissimilarities in the distribution of frequencies of different dental characteristics among different populations which are as notable and significant as blood groups and red cell enzymes, dermatoglyphics, etc., that greatly render it possible to compare and classify populations. The large genetic component and high heritability of dentition have been demonstrated by a number of genetic studies which facilitated the postulation of the modes of inheritance for various dental traits (Kraus, 1951 and Turner, 1967). More such work is however necessary to substantiate these hypotheses.

In most of the foreign countries dental anthropological researches till recently were devoted to bring to light phenotypic trait frequencies and their distribution pattern basing on which attempts were made to contemplate on the question of population inter-relationships. In recent years however emphasis has been shifted to the study of dental genetics and development to deduce conceptual models explaining the ways in which the genes operate in bringing about dental variations and their adaptive nature as reflected in the cultural and behavioural changes occurring in different populations in space and time. Taking cue from the works of Hellman, Butler, Dahlberg, Carbonell, Garn, Lewis, Vicinus, Davies, Cadien and a host of other scientists, Cadien (1972) opines thus : “.....there are

definite genetic factors that influence the entire dentition, those that affect only certain groups of teeth, and those that act upon single tooth. These must be sorted out before the differences between human populations can be fully understood."

While this tremendous turn out of research work of high quality and great intrinsic value in dental anthropology of foreign populations resulted in abundant body of published literature, in India practically no work at micro- or macro-levels has been done excepting some pioneering studies cited elsewhere in this work, though it is a vast country consisting of 22 states and nine union territories with 15 recognised languages and 212 dialects covering six major religions and 700 castes and sub-castes besides numerous tribes all of which present to the professional anthropologist and layman alike a wide range of biocultural characteristics offering an excellent laboratory situations for different bioanthropological investigations. It is hardly possible even to delineate or work out the distributional pattern of the trait frequencies for the whole country from the small scale studies limited to certain populations confined to pockets of the country let alone the research on dental genetics and development which is a far cry at this stage of our knowledge. It is this picture of research trends that entitles dental anthropology the status of a "maiden field" in India.

II. Special Areas and Coverage

In accordance with the purposes of the paper the author endeavoured to make an exhaustive survey on the earlier works concerning the dental eruption, caries, and crown morphology accounting in each case for the updated coverage pinpointing the lacunae for designing a planned prospective research in this subject, which is still in its infancy in India.

1. *Dental Eruption :*

Teeth eruption is generally defined as the time when any part of the crown has emerged through the gingival surface. The teeth once formed in the oral cavity are as much immune metabolically and adaptive in nature as the brain which speak of their relative autonomy.

Dental age like skeletal age and secondary sex character age is useful for the assessment of biological age the significance of which has been greatly recognised in the diagnosis and treatment

of children with growth disturbances. It can be estimated from data on tooth eruption in such situations where it is highly difficult to estimate chronological age on the basis of historical events. A proper estimation of the dental age can be accomplished only by reference to standards established on the population of which the subject is a member living in the same environmental conditions. In the absence of such standards it is risky to assign dental age by referring to foreign standards, British or American, which account for the chronological age approximately.

It has to be admitted that teeth are not only good indicators of age of the juvenile fossil ancestors of man but they also help in the quick and easy identification of skeletal remains, cadavers, or amnesia victims. Needless to say that the standards obtained from the studies on teeth eruption pattern are quite useful to the orthodontist in the proper and planned scheduling of treatment, to the biologist as the indicators of the stage of maturation in comparison to other populations, and to the forensic anthropologist as a criterion of age.

The age and order of eruption of deciduous and permanent teeth show as much marked variation between one individual and the other as among the different racial groups within the same region or outside. As such Hellman (1923) six decades ago remarked thus : "The arrival of a comet which makes its appearance once in many years can be accurately calculated to a small fraction in time, but notwithstanding the inestimably greater frequency with which the event of eruption occurs, the appearance of a tooth defies accurate forecast", which is perhaps valid even today. If a larger sample is studied possibly from a racial group, one can establish either a trend, a constant, or a distribution within that sample of sufficient reliability to justify its application to that group as a whole so that it could be distinguished from other populations.

Though teeth eruption has been the subject of interest since many centuries to scholars from various disciplines, it was not until recently that systematic and extensive studies have been made on it by several workers providing as much dependable results as possible. Majority of the investigations carried out on the eruption of deciduous teeth were dealt with American and European children and some with those from other parts of the world such as Japan, New Guinea, Korea, Uganda, Dakar and Gambia in Africa and Hong Kong in China.

In India no systematic research has been conducted on dental maturity among the children of numerous caste/tribal/religious groups excepting a few pioneering studies of Powell (1902) in Bombay mainly to find out the range of variation of teeth eruption, Shourie (1946a) on the south Indian boys and girls and on the Lahore boys, Banerjee and Mukherjee (1967) among the Bengalee children, Neumann et al (1969) in young rural Punjabi children, Mukherjee (1973) in the low income group Bengalee Hindu children, Visweswara Rao et al (1973) among the rural Indian children around the city of Hyderabad in Andhra Pradesh and Prakash (1974) on a small number of Punjabi Hindu children. Added to these are the most recent works of Rami Reddy (1981a, 1981c, 1982a, 1982b and 1983a) among the Brahmins, Lingayats, and other caste groups of Gulbarga, Karnataka and Rami Reddy and Vijayalakshmi (1984a) among the Velama caste children of South-eastern Andhra Pradesh.

These studies revealed the eruption of the deciduous teeth at the earliest age of 84 days in Bengalee Hindu children followed by their counterparts from Gulbarga (five months), Bengal and rural India (six to nine months), Andhra Pradesh (seven to eight months) and rural Punjab (eight months) in order. The full complement of teeth was found by 24 months in Bengalee Hindu children, by 36 months in Gulbarga, Andhra Pradesh, Bengalee and rural Indian children and by 37 months in rural Punjabi children. Earlier eruption was noted in Bengalee males while it was reverse in Gulbarga children. Andhra Pradesh (Velama) children showed no sexual dimorphism in the eruption time. Well-nourished children had greater number of teeth than undernourished in each age group. Children of high income group had experienced earlier eruption and completion than middle and low income groups. The first tooth erupted in a Brahmin female while the full complement was noticed at 36 months in all caste groups. In all religious groups similar trend was seen. South Indian children were well in advance of their counterparts in North India in dental development.

A large number of published works are available on the age and order of eruption of permanent teeth in different racial groups of the world. Most of these as in the case of deciduous teeth eruption were also limited to Europeans and Americans. Studies have also been conducted for assessing eruption status among the American Negroes, American Indians, African Bantus, Ugandans,

Gambians, Finnish, New Guineans, New Zealanders, Chinese, Western Australians, Australian aborigines, Brong Ahafo of Ghana and others.

Data on the eruption of permanent teeth too are awfully missing among the Indian populations excepting Shourie's (1946a) pioneering work conducted on the South Indian boys and girls, and Lahore boys over four decades after that of Powell (1902) in Bombay. The most recent studies on these lines consist of those on the middle socio-economic class school children in Lucknow in Uttar Pradesh by Nanda and Chawla (1966), on the school-going boys and girls in Chandigarh by Sainy (1972) and Saxena (1972), on the Chandigarh school children by Kaul et al (1975) on the poorer socio-economic class school children of Kulu valley in Himachal Pradesh by Bhasin et al (1977), on the Magar and Gurung endogamous groups of Gurkhas of Dehradun in Uttar Pradesh by Awasthi and Khare (1978), on the Gaddi Rajput males of Dhaula Dhar Range of the Himalayas by Singh (1980), and on the children of different caste groups of Gulbarga, Karnataka by Rami Reddy (1981c, 1982a, 1982b). In yet another study Kaul (1975) attempted the estimation of age from the emergence of permanent teeth.

The results of these studies showed the eruption of the first permanent tooth at 4 years in Gulbarga children and at 5-6 years in other populations. From the limited number of studies as these it could be hardly possible to observe any consistency in the completion time of eruption. In all these populations the females were found to demonstrate earlier eruption than the males. The subjects from the high income group were slightly in advance of those of middle and low income groups in the dental emergence. Variation by caste also was found through these works, the Brahmins showing earlier eruption than other caste groups while with respect to completion time, the Lingayat caste from Gulbarga stands apart from the other castes. When the data have been treated by religion, the Muslims and Christians showed earlier completion time than Hindus. There were however no marked differences between the North and South Indian children in dental eruption.

As is evident from the preceding account, the work done on deciduous as well permanent dental eruption among the Indian populations is extremely meagre as compared to the abundant data

available for the Southeast Asian, East Asian and Pacific populations which hardly helps in attempting to estimate standards for the whole country characterised by a rich diversity of endogamous castes and sub-castes, tribes and religious groups. In the light of the existence of different ethnohistorical-genetic-environmental-nutritional background of these populations, it is hazardous to follow foreign standards, European or American and others, the value and scope of which heavily suffer particularly when it comes to the application of these to cases of medico-legal importance in a country like India where the statement of Shourie (1946) made about four decades ago holds good even today that "little reliance can be placed on individual birth records or on the average person's statement concerning his or her age". The knowledge of dental eruption ages also helps the orthodontist in the correlation of disease incidence to the post-eruptive age of the teeth. Suffice it to say that it is high time to realise the relevance and necessity of these aspects for the well being of the society which have to be tackled expeditiously by the collaborative efforts of scholars from diverse disciplines.

2. *Dental Caries :*

Dental caries is a pathological condition of the teeth resulting in the decalcification of the dentine or enamel and the disintegration of the remaining organic material often leading to the loss of the teeth and occurs in association with other conditions such as periodontal disease, which cause recession of the alveolar bone resulting in loosening of the teeth and their subsequent loss; dental abscess, which is a cavity of pus within the alveolus near the root apex; dental enamel hypoplasia, which is a developmental enamel defect in the deciduous and permanent teeth seen as transverse lines, pits, and grooves on the enamel surface; antemortem tooth loss; and attrition, which is the gradual wearing away of the hard parts of the teeth.

The FDI (International Dental Federation) Commission on Classification and Statistics for Oral Conditions (COSTOC) in its recommendation to the World Health Organisation, on the classification of epidemiologic studies of dental caries and definitions of related terms, defined dental caries "as a localised, pathologic process of bacterial origin, that results in the demineralization of the hard tooth structures and progression to cavitation. Caries being a disease

process, starts with a microscopic lesion and eventually progresses into a macroscopic cavity. The term 'caries' designates 'decay of animal tissue'. Hence, it is necessary to specify tooth decay as dental caries...." It is characterised by the molecular decay of bone softening the enamel and dentine in which it becomes thin and dark and usually breaks down with the formation of pus. It is generally held that there are micro-organisms of the type *Lactobacillus Acidophilus odontoticticus* in the mouth which are cariogenic in nature and produce acids by acting on food debris lodging around the teeth. These acids largely dissolve the hard tissues of the teeth leading to caries. Experiments conducted on animals also confirmed this fact, because the existence of micro-organisms in man's mouth is necessary to ensure the physiological functions in the body, although it is still unknown which type of micro-organism or virus is responsible for the disease as many kinds of them produce acids under varying circumstances ranging from neglect of oral hygiene to sugar-containing food debris. This school of thought which is quite convincing and popular is known as the Acidogenic theory, which based on the works of the German scientists named Leber and Rottenstein in 1867, and Underwood and Mills in 1881. Miller (1883) through his classic work made the explanation of the etiology of dental caries widely acceptable which according to him was known as "chemico-parasitic theory." There are other theories too such as the Proteolytic theory known through the work of Boedecker and Gottlieb, who disputed Miller's theory, and Proteolysis-Chelation theory of Isenberg, Martin, Shatz and others put forth in 1950s on the etiology and pathogenesis of caries, which did not convince the scientific world.

James (1977) lists a number of contributory factors causing tooth decay which he divides into two broad categories, intraoral and extraoral causes. The intraoral causes are the dental plaque of food and bacteria sticking to teeth, anatomy and position of teeth, dental appliances and restoration, and lack of salivary flow. The extraoral causes are hereditary ; high sugar intake ; nutritional deficiency in calcium, phosphorus, fluorides, vitamins A, C and D and proteins ; soft foods ; and bottle feeding. These can be reduced to four to five well known factors : low fluoride levels in drinking water, food products containing large quantities of sugar, bad childhood health in general, inadequate quantities of saliva and disturbance of its optimal composition. Hereditary predisposition of dental tissue to

caries appears to be another factor. The disease manifests itself when the teeth are exposed for long periods to a combination of these factors. But the most important factors that contribute to the disease are consumption of food products with increased quantities of sugar and fluoride-lacking drinking water. When the disease acquired a high degree of severity, the affected individual finds it difficult to eat and swallow, and at times resulting in speech problems and fever. The best way of preventing caries occurrence in human populations is to take steps to reduce the quantity and frequency of consumption of sweet products particularly between meals followed by other measures such as fluoridation of drinking water, salt and milk, tooth brushing with fluoridated tooth pastes, applications of fluoride solutions to teeth and balanced diet.

All the five surfaces/sites of the tooth crown—occlusal, labial or buccal, lingual, mesial proximal and distal proximal either individually or in combination with one another, or all are known to be affected by dental caries. The occlusal or biting surface so called in the case of molars and premolars corresponds to the linear area of the incisors and canines called the incisal edge. Caries most commonly occurs in the depressions namely pits, fissures and grooves of the occlusal surfaces, which are adjoining the next tooth or the in-between surfaces. Both mesial proximal surfaces and distal proximal surfaces are equally susceptible to caries. The buccal surface is the outer surface in contact with the cheek in the case of posterior, back or grinding teeth and labial surface in the case of anterior, front or cutting teeth which rub against the lips. The lingual surface is the inner surface of all teeth in contact with the tongue. Both in labial or buccal and lingual surfaces caries occurs near gum margins. In smokers and betel chewers the lingual surface is covered by stains when it is difficult to detect caries. In older people the root exposed due to recession of gum away from the enamel also gets affected by caries. Dental caries which is brownish or blackish in colour is usually symptomised by a peculiar pain and sensitivity in the affected teeth. The teeth most commonly affected by caries are the molars followed by premolars and the least affected are the anterior teeth namely the incisors and canines.

Dental caries is thus a multifactorial disease. The factors that govern the susceptibility or resistance to dental caries in humans are genetically controlled as borne out by a number of studies on animals, human families and twins. The polygenic inheritance of the

disease is acknowledged by one and all but no convincing explanation has yet emerged regarding the complexity of the hereditary aspects, the extent of their contribution and the mechanism of genetic expression or pathways in relation to a number of extrinsic and intrinsic environmental factors.

Dental caries in varied proportions afflicted all the nations of the world with significant differences in its prevalence between developed and developing countries. Gone are the days however when the dental caries prevalence used to be of very low or low levels in most of the developing countries including India unlike in the so called developed or economically advanced countries. One of the earliest Indian studies conducted by Shourie (1946b) found positive correlation between lower incidence of caries and enamel mottling produced by limited concentrations of fluorine in drinking water. Recent cross-sectional investigations have been carried out by Rami Reddy and Vijayakumar (1978) among Vysyas (69.8%), by Rami Reddy and Naidu (1980) among Madigas (30.5%), by Prasad (1980) among Brahmins (56.7%), by Rami Reddy et al (1982a, 1982c and 1984b) among Pattusalis (21.7%), Muslims (46%) and Balijas (44%); by Kunzru and Krishna Reddy (1984) among Valmikiis (18.6%) and Kammas (42.1%), by Sayi Prasad and Papa Rao (1984) among rural (34.9%) and urban (24%) populations, by Dharma Rao et al (1984) among Yadavas (22%) and Pallis (31%) and by Busi et al (1984) among students of Andhra University—all in Andhra Pradesh, and by Rami Reddy (1980a, 1980b, 1982d and 1982e) among Brahmins (26.1% and 17.8%), Lingayats (31.2% and 15.8%), others (33.1% and 23.7%), Muslims (36.2% and 15.8%) and Christians (27.8% and 23.4%) with deciduous teeth and permanent teeth respectively—all from Gulbarga, Karnataka showing a wide range of variation in caries prevalence from 15% in the students of Andhra University to 69.1% in the Vysyas, and their DMF/df teeth lie between very low and low levels and occasionally between moderate and high to very high levels as in Gulbarga children with deciduous teeth and Vysyas of Andhra Pradesh. Generally the females, mandibular teeth, molars and occlusal aspects have been found to be more affected by the disease than their counterparts. This increasing trend in the prevalence of caries in Indian populations is due to modernisation, urbanisation, eating habits and other socio-cultural factors and therefore preventive steps have to be taken to eliminate the disease after assessing its prevalence.

3. *Dental Morphology :*

The study of the distribution and inheritance of the morphological characteristics of the teeth and jaws in the living as well as extinct man and non-human primates renders it possible to delineate the nature and extent of interrelationships between them, their origins and evolution apart from variation. Some of the pioneering studies on these traits particularly among the Mangoloid populations have been made by Hrdlicka, Dahlberg, Campbell, Pedersen, Hellman, Krogman, Moorrees and a host of others.

There are a large number of different traditionally-studied and newly defined crown morphological traits, particularly the non-metric ones, known to date which may be tooth/teeth or jaw-specific or sometimes characteristic of the whole dentition. They are winging of central incisors, shovelling, double shovel, incisor interruption grooves, tuberculum dentale, canine mesial ridge, canine distal accessory ridge, premolar cusp number, premolar accessory cusps, tuberculated premolar, Carabelli's cusp, hypocone variation and cusp 5—all in the maxilla; lower incisor shovelling, premolar lingual cusps, molar groove pattern, molar cusp number, deflecting wrinkle, cusp 6 (entoconulid), cusp 7 (metaconulid) and rocker jaw—all in mandible; and other traits such as hyperdontia or supernumerary teeth, supernumerary cusps, diastema (gap) or trema between the incisors or incisors and canines, crowding, shape of the dental arches, enamel margins, form and size of the pulp cavity, torus palatinus or palatine torus (a bony ridge in the middle of the hard palate), alveolar hyperostoses, occlusal variation, and reduced or missing incisors or missing third molars. Scales have been developed for expressing the intensity of variation in the traits right from the first quarter of this century, some scales have been refined and new ones are under development for some traits.

There are a number of works on dental traits in different racial groups but the genetics of these traits as that of other bodily variables is very complex and complicated, much of which is least understood in view of few attempts made so far, although the genes that influence both kinds of anomalies are the same. To understand the mechanics and mode of inheritance, to assess the effect of non-genetic factors on the genetic factors in the development of these traits and the importance of these in evaluating the inter-relationships of modern human populations and the ongoing process of human evolution, pedigree and twin studies are the need of the hour. A

large majority of the above traits have been studied with reference to a few populations only. For the few well known traits studied extensively abundant data are available from a number of world populations including those of India and these have been dealt with for the purposes of the present paper to understand the level of their research in this country.

(i) *Supernumerary teeth :*

Supernumerary teeth or hyperdontia are extra teeth beyond the normal number unlike hypodontia or agenesis showing decrease in the number of teeth both representing numerical variations in the teeth. They can be found in any location in the dental arch but are generally observed outside the arch and are known to cause a considerable amount of dental disturbances by interfering with the growth, development, and eruption and arrangement of the normal teeth. There may be certain supernumerary teeth which remain unerupted and block the eruption of other teeth, whose presence can be highlighted only by X-rays without which it becomes highly difficult to decide which teeth are supernumerary and which represent normal dentition.

The supernumerary teeth are either peg-shaped or have a larger crown. They have often been considered as atavistic in nature indicating an ancestral or primitive pattern. They may be present on one side of the mouth and in line with the other teeth. Sometimes these are hereditary with a higher frequency occurring in the maxilla. They are usually found in the incisor regions of either jaw and less frequently in the premolar and molar regions of deciduous as also permanent dentitions. They occur in all human races in varying proportion. They also have been reported in non-human primates such as gorilla (4.4%), chimpanzee (2.9%), orangutan (6.8%) and gibbon (0.7%) as revealed by Colyer and Sprawson (1944).

Published literature shows very few works on this numerical variation most of which are limited to tribal populations only. One of the earliest studies made by Campbell (1925) among the living Australian aborigines and on the skulls showed 1.8% of supernumerary teeth. Slightly over two decades after this investigation, Sinclair et al (1947) examined the dental conditions among the Papuans of New Guinea and found two per cent of them with supernumerary teeth. Pedersen (1949) reported slightly less than two per cent of these teeth in the East Greenland Eskimos, while Shaw

(Pedersen, 1949) found 2.7% of the South African Bantus possessing these teeth. But Moorrees (1957) did not encounter any such teeth in the dentition of Aleutian Eskimos. Barksdale (1972) who studied the natives of Eastern Highlands of New Guinea found supernumerary teeth in 3.67% of these folk, the proportion of females (5.26%) being higher than that of males (3.33%). All these populations although of similar racial origin have shown variation in the incidence of hyperdontia. Two other studies of significance on this trait are those of Stafne (1932) and Lasker (1950).

In India too studies have been conducted on this anomaly but in a few populations only such as on the crania from East India by Pal (1964), among the Vysyas of Southeastern Andhra Pradesh by Rami Reddy and Vijayakumar (1978), and among the Balijas of Tirupati by Rami Reddy et al (1984c), in whom the proportions of supernumerary teeth noticed are 2.0, 0.25, 0.86, 2.35 and 2.5 per cent respectively. From this it is clear that the work done on this trait in the Indian subcontinent is extremely limited.

(ii) *Carabelli's cusp* :

The cusp of Carabelli is an accessory cusp that develops as an elevation or tubercle on the lingual surface of the mesiolingual cusp (protocone) or surface of the deciduous and permanent maxillary molars particularly the first one and occasionally on the mandibular deciduous second molars too. The trait was first detected and described by Von Carabelli in 1842 since when it gained much importance as a 'marker' for differentiation between populations of different ethnic origins. Besides, it is also used in phylogenetic studies. In the opinion of Lasker (1950) the anomaly of Carabelli appears to be an inherent constitutional variable in man and other primates. Its occurrence has been traced back to palaeolithic man particularly in Europe.

The trait shows considerable variation in its occurrence, size and location as known from a number of published works of different authors. The highest frequency of this trait occurs in the deciduous second molars followed by the permanent first, second and third molars. The trait varies in size from a small furrow or groove or line to a large cusp with a triangular tip; the intermediate forms between these two extremes are a pit, a y-shaped furrow, a slight protuberance, and a small cusp often found with a furrow. The former two structures namely the furrow and pit are called as

negative cusps while the latter two, protuberant and cusp formed structures are described as positive cusps. The trait may occur unilaterally. Regarding the location of the trait it may be stated that the cusp occurs on the mesial half of the lingual surface of the deciduous second molars and permanent first molar whereas on the permanent second molar the structure is more distally located.

Several studies conducted on this dental polymorphism in a number of populations outside India revealed its occurrence in a much higher incidence in the Caucasians (Dietz, 1944) and Negroes than in Mongoloid and related groups. The highest frequency of the trait ranging from 51 to 90% has been reported in European populations, slightly lower percentages in African populations and in American Indians, and the lowest among the Arctic populations (Alvesalo et al, 1975). The different populations of the Mongoloid stock studied are Mongols by Batujeff in 1896, Chinese by De Terra in 1905, Japanese by Hachisuka (1937), Pecos Indians by Nelson in 1938, East Greenland Eskimos by Pedersen (1949), Northwest and Laboador Eskimos and Pima and Blackfoot Indians by Dahlberg (1949). In Australian aboriginals Campbell (1925) found 33% of the molar teeth with the Carabelli's cusp. Slightly lower than this proportion (29%) has been reported by Pedersen (1949) in East Greenland Eskimos of White admixture, while in isolated areas where the admixture has been the least the trait was nearly absent. However, in American Whites the anomaly occurs in higher proportions (41%) as shown by Dahlberg (1945), whereas in Melanesians a high incidence of the trait was found (Dahlberg, 1963), Barksdale (1972) found in 73% of the Eastern Highlanders of New Guinea. On the whole the lowest frequency of this cusp was found in Eskimos as demonstrated by Dahlberg (1949), Pedersen (1949) and Moorrees (1957).

Many studies have also shown that the interside and intersex differences in the incidence of this trait in different populations of the world are negligible and statistically insignificant (Dietz, 1944 ; Kraus, 1951 ; Tsuji, 1958 ; Goose and Lee, 1971). That the trait shows certain amount of asymmetry has been demonstrated by Meredith and Hixon (1954) and Biggerstaff (1973) and that the expression of the trait appears to be slightly stronger in males than in females.

A number of dental anthropologists attempted to study the genetics of Carabelli's cusp, which is an inherent constitutional

variable. Majority of them agree that the trait is genetically determined though there are differences in the opinions regarding the mode of inheritance. According to Dietz (1944), the trait might be controlled by a single dominant gene in view of its high frequency. Tsuji (1958) holds that an autosomal dominant gene is responsible for the trait but its penetrance is incomplete. Kraus (1951) based on family data shows that the trait is inherited as a Mendelian dominant for which he suggests an intermediate two-allele model with three genotypes and three corresponding phenotypes : cc = absence of the trait (homozygotes) ; Cc = intermediate expression of the trait (heterozygotes) ; CC = pronounced tubercle (homozygotes). Goose and Lee (1971), and Lee and Goose (1972) based on their inheritance studies on this trait among the Caucasian and Chinese populations suggested that the simple Mendelian models appear to be unacceptable for this trait the different grades of which are continuous and not discrete as thought by Hrdlicka (1920) and most of the later workers, and it is to be inherited in a multifactorial way. Biggerstaff (1973) who studied monozygotic and dizygotic twins concluded that the heritability of the cusp of Carabelli is low. Thus all these attempts show the complex nature of the pattern of inheritance of Carabelli's cusp which can at best be studied and understood when more data are available from systematically studied populations.

The above studies mainly dealt with the Mongoloid groups of populations, and some with Whites and Negroes. In India this trait has been studied recently by Joshi et al (1972) among the Hindus of Gujarat (64.6%), by Pal (1978) on the human crania from Eastern India (26.4%), by Bhasin et al (1979) among the Jats of Haryana (61.2%), and by Rami Reddy et al (1982a and 1982b) among the Pattusalis (26%) and Muslims (15%) of Southeastern Andhra Pradesh, by Rami Reddy (1983b) among the people of Gulbarga, Karnataka and by Rami Reddy et al (1984c) among the Balijas of Tirupati (13%). In the Gulbarga samples, the trait was found in 36% subjects with deciduous teeth and 27% subjects with permanent teeth with statistically significant sexual dimorphism. Deciduous second molars (42.1%) and permanent first molars (25.3%) as expected have shown the highest proportions. On the whole there is no consistent trend in the pattern of variation of the trait in Indian populations.

(iii) *Shovel-shaped incisors :*

The term shovelling, first introduced by Muhlreiter in 1870

according to El-Najjar and McWilliams (1978), is used to describe a condition resulting from a combination of a concave lingual surface and elevated mesial and distal marginal ridges enclosing a central fossa in the upper and lower incisor teeth. It also occurs on the monocuspid canines when their mesial and distal lingual marginal ridges produce the shovelled contour. The trait has been reported in varying proportions in monkeys and apes, Palaeolithic-Neolithic people and contemporary human populations. Hrdlicka (1920) who has done pioneering work in the area of dental anthropology reported pronounced shovelling in the incisor teeth of the American Indians. In the years 1920-21 he found the highest incidence of this trait in the incisors of different Mongoloid groups—Chinese, Japanese, Eskimos and American Indians whereas in Negroes the proportion was lower and among Caucasians the lowest. These findings of Hrdlicka were later confirmed by the works of a number of scholars (Goldstein, 1948 ; Pedersen, 1949 ; Dehlberg, 1945 and 1949) showing that the shovelshaped teeth are characteristic of the Mongoloid stock. The existence of this trait has been found in the Peking Man (*Sinanthropus pekinensis*) by Weidenreich (1937) who suggested genetic continuity of the trait from the fossil human ancestors of China to the modern Mongoloid populations. Lasker (1950) found these teeth in 14% of White Americans studied by him. He noticed no difference in the incidence of the trait between central and lateral incisors but in the latter teeth the character has been observed to be predominantly more pronounced. In the natives of Eastern Islands of New Guinea, Barksdale (1972) noticed the trait in only 6 per cent of the samples. Campbell (1925) held that the character was not a frequent one in the Australian aboriginals.

According to Hrdlicka (1920) the trait of shovelling is divisible into four classes or grades : 1. *shovel*, in which the enamel rim has well developed fossa ; 2. *semi-shovel*, in which the enamel rim is distinct but with a shallower fossa ; 3. *trace shovel*, in which the enamel rim has distinct traces but cannot be classified as semi-shovel ; and 4. *no shovel*, in which the enamel rim has no traces or no fossa, or, very faint. Milo Hellman called these by the terms *marked*, *medium trace* and *absent* respectively. To this classification Moorrees (1957) added one more grade called '*marked shovel*', in which the marginal ridges are very prominent and when seen in transverse section seem to fold or roll over the lingual surface in the form of letter C.

In India the only studies conducted on this dental trait are those

of Ganguly (1960) among the Nicobar Islanders, whose frequency with shovel-shaped incisors comes very close to the proportions found in the people of Indonesia, Micronesia and Polynesia : Pal (1964) on the crania from eastern India (48%) ; Bhasin et al (1979) among the Jats of Haryana (72.2%) ; Rami Reddy et al (1982a and 1982b) among the Pattusalis (about 50%) and Muslims (5.74%) of Southeastern Andhra Pradesh ; Rami Reddy (1983c and 1983d) among the people of Gulbarga, Karnataka (subjects with deciduous teeth : 6.5%, subjects with permanent teeth : 28.5%) and Rami Reddy et al (1984c) among the Balijas of Tirupati (7%). Taking Dehlberg's suggestion into account, if the frequencies of the semi or medium and full or marked shovel forms are combined together ignoring the trace shovel, the trait in Indian populations with about 10% conforms to that of Caucasoids in general.

(iv) *Diastema* :

Diastema is a space or gap present between the maxillary central incisors or between the maxillary lateral incisors and canines. The former one is called median diastema or trema which is more frequently observed in the maxilla while the second type, the lateral diastema is found only in the maxilla. The median diastema is occasionally combined with lack of or a reduction in the size of the lateral incisors. The lateral diastema is similar to its counterpart found in anthropoid apes and certain fossil men in which the mandibular canine being large needs space or diastema between the maxillary lateral incisors and canine. The diastema may be broad or narrow.

The diastema, though a questionable character, is of intrinsic value in the study of human phylogeny. A thorough examination of published works reveals that the data on this character is awfully missing in Indian as well as in overseas population barring the pioneering work of Ruggle Gates (1959) on a number of pedigrees. The classic study of Korkhaus (1930) based on dental casts of six pairs of identical twins revealed concordance in at least four of them. Weninger in 1933 with the help of 26 families characterised by median diastemata or trema came to the conclusion that the trait is a strictly dominant one (cited by Gates, 1959). Lasker (1950) also holds that the trait appears to be a dominant one. No attempts have been made so far to study the racial occurrence of this character.

In India no studies have ever been conducted on the incidence of this trait except the recent ones by Rami Reddy et al (1982a and

1982b) among the Muslims (5%) and Pattusalis (3.25%) of South-eastern Andhra Pradesh, by Rami Reddy (1984) among the people of Gulbarga, Karnataka (subjects with deciduous teeth : 21.1%, subjects with permanent teeth : 33.7%) and by Rami Reddy et al (1984c) among the Baliyas of Tirupati (4.3%). In all these populations the incidence of the trait is higher in males than in females, the bisexual difference being significant in the Gulbarga people. In the last populations marked variation in the incidence of the trait has been found between caste and religious groups as well.

(v) *Crowding* :

Crowding is another nonmetric trait complex in nature which exhibits lack of sufficient space for the teeth in the jaws. There is no unanimity as to whether this trait, which is prominent in modern man, is an inherent constitutional variable (Lasker, 1950), but the fact is that the crowding of teeth results due to the inheritance of large teeth from one parent and small jaw from the other, which are determined before birth. This is unlike in the case of spacing which occurs between teeth when the jaw is large and the teeth are small. Thus the existence of crowding as also spacing indicates that the tooth size need not be in complete accord with the jaw size. According to Cadien (1972) "extreme crowding of teeth probably is not an advantageous condition, so selection may be operating to reduce it." Therefore crowding, one of many causes for malocclusion, may be considerably influenced by genetic as well as environmental factors.

This dental anomaly which is known for its significance in understanding human evolution is most neglected in population studies in India or outside. The only study known to the writer is that of Boyd (1972) among the natives of Eastern Highlands of New Guinea who have shown crowding to the extent of 34.4% cases in mandible and 26.1% cases in maxilla in a sample of 218 dental casts of natives. There were only nine cases with marked crowding in which the arch length was found to be greater than 5 mm. Mandibular crowding has been found to be significantly greater in these natives. Boyd in an attempt to relate crowding to tooth size computed the mean mesiodistal tooth measure from second molar to second molar in each arch for the natives and found a progressive increase in tooth size as crowding becomes more severe. On the whole, the absolute tooth size was found to be greater in subjects with crowding than in those with spacing. The

only study made in India was by Rami Reddy (1984) among the people of Gulbarga, Karnataka (subjects with deciduous teeth : 11.1%, subjects with permanent teeth : 40.5%). This study has shown interjaw, intersex, intercaste and interreligion variation in the occurrence of trait.

(vi) *Cingulum or Lingual Cusp* :

El-Najjar and McWilliams (1978) following Black and Wheeler define cingulum as "the lingual cusp known of an anterior tooth. A shelf or swelling which is found on the tooth just above the cervical line and is the site of the development of many supernumerary cusps". According to Segal (1963), the ridge found on the lingual lobes of the incisor and the canine teeth is termed the 'cervical ridge', or the 'cingulum'. It is more specifically found in the cervical portion of the lingual surface. It may be present as a prominence in the cervical one-third of the deeply concave, lingual surface of the upper and lower, central and lateral incisors of the permanent as well as deciduous dentition. In shape it may be just highest area at the junction of marginal elevations or it may extend tongue-like into the concavity of the lingual surface. It may be simple or divided by the furrows into two or more smaller cusplets (Sicher, 1965).

This dental tubercle is separate from the shovel-shaped form of the incisors but the detection of this character becomes difficult when the marginal ridges come in contact with each other. This is also a primitive characteristic which helps in highlighting the racial differences between populations of different biological origins. The only work available in the literature is that of Pedersen (1949) among the East Greenland Eskimos for whom no percentage of the incidence of the cusp is given. Later Barksdale (1972) reported the occurrence of lateral incisors with lingual cusps or cingulum in 18% of the casts of the Eastern Highland natives of New Guinea studied. No data are available on pedigree studies at all.

In India the few studies conducted on this trait are those of Rami Reddy et al (1982a and 1982b) among the Pattualis and Muslims of Southeastern Andhra Pradesh and Rami Reddy (1984) among the people of Gulbarga, Karnataka. In the first two populations the proportion of the trait has been found to be negligible (around 4%) whereas in Gulbarga its incidence was observed to be enormously high (persons with deciduous teeth :

39.3%, persons with permanent teeth : 54.7%) exhibiting significant sex, jaw, caste and religion variation in the occurrence of the trait.

(vii) *Occlusion* :

Dental occlusion is the relationship between the masticatory surfaces of the maxillary and mandibular teeth, when the mouth is closed. Individuals with correct or normal occlusion have their teeth of either jaw arranged in well formed arches, elliptic maxilla and parabolic mandible, presence of contact between individual teeth and between each tooth of one jaw with two teeth of opposing jaw barring the mandibular central incisors and maxillary wisdom teeth, all forwardly placed mandibular teeth but central incisors, smaller arch than the upper one to facilitate the occlusion of the upper former inside the latter showing the upper incisors covering the lower incisors and the coincidence between the two jaws in the midline.

The normal or excellent occlusion of the natural dentition described above is not a fixed or static condition due to the changing cultural environment of man in space and time and any deviation or failure from the norms, or when the biting surfaces do not meet correctly, it makes the occlusion defective which is termed as malocclusion to differentiate it from the normal occlusion. The term malocclusion is ill-defined and biased (Corruccini and Whitley, 1981) since it does not necessarily cause a functional problem (Moorrees et al, 1971). Therefore majority of the people prefer to speak of "occlusal variation" rather than using the word malocclusion.

The irregular occlusal variation or the so called malocclusion is caused by hereditary or environmental factors. Those scientists or orthodontists who emphasize the role of genetics in the causation of malocclusion have not totally ignored the environmental causes. They, however, emphasize such factors as finger or thumb-sucking, mouth breathing, abnormal muscle patterns, inadequate masticatory function, abnormal swallowing patterns, and premature loss and overretention of milk teeth apart from a number of hereditary factors such as large teeth and small jaws, abnormal skull growth, cleft palate, ill-developed soft tissues like short upper lip and abnormally large tongue, deviation in the eruption times and the pattern of teeth etc, and certain diseases like rheumatoid arthritis and rheumatic fever of childhood affecting jaw growth in the areas

of condyles forming part of temporo-mandibular joints ; decrease or increase in the number of teeth ; diseases and injuries ; endocrine dysfunction, forceps delivery and so on.

The incidence of malocclusion in different human populations as reported by Lombardi and Bailit (1972) are as follows : American Whites—29%, English—38%, American Blacks—17%, Hungarians—17%, Tristan de Punha—15%, Polynesians—16%, Eskimos—5%, Aleuts—13%, Australian aboriginals—7%, and Kwaio—7%. In U.S.A. Kelly and Harvey (1977) reported that 40% of the youth have malocclusion. In most of the industrialised western populations the proportion of an ideally defined normal occlusion is very small in view of which the American professional dentists opined that malocclusion is not an abnormal feature whereas infact in racial groups found in other parts of the world which mostly depend on consistent dietary patterns, the rate of malocclusion is extremely low and therefore can not be considered as normal trait (Corruccini and Whitley, 1981).

In India very few studies have been conducted on occlusal variation. Sidhu et al (1970) based on the cephalometry experimented on the school going Parsi children and Maharashtrians of Bombay, concluded that the different eating habits were the cause of malocclusion. The most recent works on dental occlusion contributed by some physical anthropologists are by Rami Reddy and Vijayakumar (1978) among the Vysyas of Southeastern Andhra Pradesh, by Awaradi (1979) among the students of Karnataka University, by Rami Reddy (1981b) among the people of Gulbarga, Karnataka and by Rami Reddy et al (1984c) among the Balijas of Tirupati. These studies have revealed a very low proportion of malocclusion cases as a result of least exposure to processed food stuffs inspite of the existence of contacts with the urban and industrial centres. The other study that deserves to be mentioned is by Kaul and Corruccini (1982), who, enthused by the finding of better dental occlusion or lower prevalence rate of malocclusion in rural than urban communities in the developed countries, wanted to trace the etiology of malocclusion by conducting a survey on occlusion variation in relation to various environmental and social characteristics contrasting rural and urban youths. The survey was carried out in Chandigarh (Punjab) on a sample of 265 Jat youths of both sexes (Males : 145, Females : 120) aged 12-16 years from seven schools, representing the high, middle and lower socio-

economic groups. Interestingly it revealed that the children of the lower socioeconomic group mainly rural in origin showed significantly better dental occlusion with broader maxillary arches as their counterparts in developed countries and suggested a number of environmental factors as responsible for malocclusion such as deciduous tooth loss, nutritional heterostasis and masticatory function—all interrelated by common influences from the diet and from the hormonally-guided and functionally-stimulated orofacial growth rather than the genetic factors or other variables such as inbreeding, race crossing, caries, periodontal diseases, oral habits, etc.

III. Conclusion

In conclusion, it may be stated that no systematic research has been conducted in the area of Indian dental anthropology till recently except for some pioneering studies although commendable work has been turned out in America, Europe, Japan, New Guinea, Korea, Africa, Australia, New Zealand and China. Since the importance of the knowledge of dental anthropology is as good as that in other fields of biological anthropology, it is of paramount importance to consider this as an academic and research subject in Indian anthropology.

The eruption age standards of different teeth in different populations representing various strata of the society are yet to be estimated instead of relying on European or American standards. The usefulness of such standards is emphasised not only by orthodontists in the proper and planned scheduling of treatment but also by the biologists in the evaluation of the stage of maturation of teeth in different ethnic groups and by the forensic anthropologists in the determination of age. There are no standards available for the sizes and shapes of dental arches, without which the orthodontist can not make dentures satisfactorily. The medicolegal cases heavily depend on the criteria of age and sex of teeth. The study of dental caries to assess its prevalence rates and to suggest preventive measures is the need of the hour due to the alarming increase of this disease from year to year on account of modernisation, urbanisation and industrialisation. There are a number of other dental morbid characters like alveolar abscess, periodontal disease, dental enamel hypoplasia, antemortem tooth loss, attrition, tartar, gingivitis etc. which need to be investigated in collaboration with

dental scientists. Dental crown morphology is another valuable area used in racial comparison and classification as also in the microevolutionary studies of the modern form of human teeth in the background of environmental and behavioural adaptations. A large number of these traits are known and many have been newly defined, which may be tooth/teeth or jaw specific or sometimes characteristic of the whole dentition.

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SOCIAL ORGANISATION OF THE CHENCHUS

A Gathering-Hunting Tribe of Andhra Pradesh

P. K. BHOWMICK

I

Social Organisation is the net-work of relations existing among individuals and groups in a Society. In it, mutual relations, obligations, elements of ideal behaviour, anticipated behaviour and actual behaviour are all included.

Traditionally, the Chenchus are divided into a number of local groups. Each group shares a common collecting ground of food and fuel and semi-permanent or permanent settlement from which the younger generations learn many of the behaviour patterns which bind them together. Through frequent interaction with the great tradition of their Hindu neighbours, they are slowly changing their traditional life-style. Ultimately, their behaviour pattern, mutual relationships, obligations related to every category of persons are also undergoing changes.

It has been observed that there are many divisions among the Chenchus. These divisions sometimes refer to a common origin and connect them with particular professions they practise, i.e., their functional behaviour in nature. Sometimes, these are related to a region or a geographical boundary or association of dominant caste or tribe. Ultimately, these help them to forge an identifiable group of varying sizes by which one can be distinguished from the other. But, of all these groups, big or small, Chenchu-Yanidi's identity has drawn the attention of many social scientists and administrators. According to them, the Chenchus and the Yanidis have common origin, though these two share only two clan names. Andhra Pradesh Tribes Advisory Committee (1961) supports this view and says: 'The Chenchu and the Yanidi are one and the same. To put it briefly, the Chenchu ran down the hill and became Yanidi. Their food habits, religious beliefs, cultural approach, clan characteristics and folklore and, to a great extent, living conditions are the same.'

Mr. Raghaviah (1962) who worked for a long time among the Yanidis, however, disagrees on the social identity of the two groups. The Chenchus, he says, have a definitely higher social status and they

generally refuse to take cooked food from the hands of a Yanidi, while the Yanidis take cooked food from those of the Chenchus. Present investigation affirms that the Chenchus dislike to be identified as Yanidis and consider themselves a separate group of higher social status than the Yanidis. However, many factors and historical interactions distinguish and identify the Chenchus as a separate group and point out that they have many sub-groups; but connubial relations among them are not prevalent due to geographical separation. This factor of common origin or ancestry is not strong enough to create a sense of ethnocentrism and bring these groups into a bigger unit through emotional ties. This has been observed by Führer Haimendorf (1943 : 87) who writes : "There is, however, no 'tribal feeling' in the sense of a common destiny, nor does one section of Chenchus show any solicitude for the well-being or prestige of other groups. This lack of tribal feeling finds expression in the absence of any kind of tribal organisation which would co-ordinate the various groups for social, ceremonial or religious purposes. The principal units of the Chenchu Society are clans, the local group and the family..."

II

The Chenchus are an endogamous group with exogamous clans (these are to be the larger divisions in the tribe). The existing Social Organisations among the Chenchus is of Murdock's Dakota type, which is characterised by patrilineal descent and Iraquis type of cousin terminology.

The existence of clans is reported from nearly all the tribes of India, except the Andamanese and a few others. Among the Chenchus, clan is known as *Kulam* as well as *Gotra*. Persons belonging to the same clan call themselves *Kulapollu* (people of the same *Kulam*). A clan consists of a number of families and the members of the same clan consider themselves to be brothers and sisters (in their respective generations), besides believing that they are the descendants of a particular mythical clan ancestor.

According to the Census of India, 1961 (1966 : 8), there are 26 clans among the Chenchus as given below :

1. Marrepalle, 2. Mandla, 3. Eravala, 4. Nimmala, 5. Chigurla, 6. Thokala, 7. Pulicherla, 8. Udutaluri, 9. Dasari, 10. Mayillu, 11. Kotraju, 12. Balmuri, 13. Kannimunne, 14. Bhumani, 15. Kudumula, 16. Garaboina, 17. Gulla, 18. Topi, 19.

Arthi, 20. Bojja, 21. Mamidi, 22. Gaddamollu, 23. Pittollu, 24. Jalli, 25. Chavadi and 26. Nalla Pathulu.

During a survey in the 15 villages covering the districts of Mahabubnagar, Kurnool and Prakasam almost all these above mentioned clans were found along with some other clans like Pitla, Indla, Thota, Domsam, Atterla, Mekala. Some clans are commonly found in all Chenchu areas whereas some clans are exclusively found in one area. Table 1 gives the names of different clans and their distribution in the districts under survey. Haimendorf tried to show clan affiliations with particular tracts of land of Nallamalai. According to him (1943 : 89) : "Thus it appears that the clans were once regional units and in possession of clearly defined tract of land, but this system has suffered partial disintegration through the opening up of the forest and the disturbance of the old life by the activities of various outsiders ;..."

There is no story or legend related to the origin of the tribe itself as other tribes have.

In the same way, the Chenchus do not have sufficient knowledge regarding the origin of different clans. The persons of older generation have some idea of their clan origins, but the younger folks seem to be fast losing interest in these traditions and hardly have inclination to believe in the origin and myths of clans. Information regarding the origin of different clans was collected from the old Chenchus. Certain families in the bygone days seem to have been associated with particular activities or incidents and a related clan-name was attached to the families of the descendants of those original families. Some stories associated with the origin of the clans are given below :

ARTHI : A group of people lived under the tree called 'Arati Chettu' (banana plant) and so they are called after the plant-name 'Arthi'. **NIMMALA** : Their ancestors were supposed to have raised 'lemon trees'. Consequently, they ascribed the clan-name to 'Nimmala' (lemon tree locally called *Nimma Chettu*). **KUDUMULA** : A Chenchu woman gave birth to a male child while preparing 'Kudumulu' (a preparation of sweet-meat). The child was named 'Kudumulayya' and his descendants formed a separate clan called 'Kudumula'. **UDUTALURI OR UTTALURI** : A group of people have the reputation for hunting 'Udatalu' (squirrels). Ultimately, it became their clan name. **TOKALA** : The word

TABLE I
Distributions of Clans

Sl. No.	Names of Clans	Mannanoor	Vatwar-palle	Pullai-palli	Appapur-penta	Rampur
		1	2	3	4	5
1.	Bhumani/Bhoomani	—	—	—	—	—
2.	Kudumula	—	—	—	—	—
3.	Uttaluri	F	F	—	—	—
4.	Nallapotula	F	F	F	F	—
5.	Katraju	F	—	—	F	F
6.	Nimmala	F	F	F	F	F
7.	Mandla	F	F	—	—	—
8.	Gulla	—	—	—	—	—
9.	Chigurlla	F	F	F	F	F
10.	Indla	—	—	—	—	—
11.	Topi	—	—	—	—	—
12.	Barmala	—	—	—	F	—
13.	Arthi	—	—	—	—	—
14.	Jalli	—	—	—	—	—
15.	Garaboina	—	—	—	—	—
16.	Thota	—	—	—	—	—
17.	Pullicherla	—	—	—	F	—
18.	Tokala	—	—	F	F	—
19.	Damsam	—	F	—	—	—
20.	Pitla	—	—	—	—	—
21.	Mekala	—	—	—	—	—
22.	Dasari	—	—	—	—	—
23.	Bangi	—	—	—	—	—

'Toka' means 'tail'. The Chenchus of Appapurpenta and Pullaipalli in Mahaboobnagar district claim that one group of them preferred hunting of tailed animals like 'tiger'. Hence 'Tokala' became their

Distribution of Clans

(F—found)

Fara- habad	Byr- luti	Naga- luti	Pechch- eruvu	Poth- uraju -penta	Sri- sailam	Pedd- aman- thana -nalu	Alli- palem	Chil- ka- cherla	Marri- palem.
6	7	8	9	10	11	12	13	14	15
—	F	—	F	—	F	F	F	F	F
F	F	—	F	—	F	F	—	F	F
—	F	F	F	F	F	F	F	—	—
—	—	—	F	—	—	—	—	—	—
—	—	—	—	—	—	F	—	—	—
—	F	F	F	F	F	F	—	—	—
—	F	F	—	—	—	—	—	—	F
—	F	F	F	F	F	—	F	F	F
F	F	—	F	—	—	F	—	—	—
—	F	—	—	—	—	—	—	—	—
—	F	—	—	—	—	—	—	—	—
—	F	—	—	—	—	—	—	—	—
—	F	—	F	F	F	F	—	—	—
—	F	F	—	F	F	F	—	—	F
—	F	—	—	—	F	—	—	—	—
—	F	—	—	—	—	—	—	—	—
—	F	F	F	F	—	—	—	—	F
F	—	—	—	—	F	—	—	—	—
—	F	—	—	—	F	—	—	—	F
—	—	—	—	—	F	—	—	—	—
—	—	—	—	—	F	—	—	—	—
—	—	F	F	—	—	—	—	—	—
—	—	F	—	—	—	—	—	—	—

clan name. The Chenchus of 'Tokala' clan in the villages of Mannanoor and in some villages of Kurnool and Prakasam districts expressed a different view. According to their version, their clan

was named after a man who was fond of retaining the tail of every animal killed by him in the game. According to Fürer Haimendorf (1943 : 92), one section of people used to wear narrow and long strip of cloth to cover their nudity, which was hung down in the back as a tail and hence the name 'Tokala' meaning tails was given to their clan. Another story runs as follows : "Once upon a time several brothers living at one place, owned a number of fruit trees, which stood along a path for a long time. Everyday, the eldest brother used to send the younger brothers to guard the fruits against monkeys and birds. Everytime, while sending his brothers he used to tell them 'take care of my Tokal trees' (meaning trees standing in a line like a tail). At last the youngest brother became angry and said—'All day long we keep watch over those fruit trees. I am tired of always hearing the same thing, again and again. Give me my sister as wife and I shall leave you and go and live in some other place'. The eldest brother also got angry and said—'Do as you please, take your sister and go wherever you want'. So the youngest brother married his own sister and left that place. Nobody knows what happened to them, but those remaining behind were called 'Tokala' people, because they looked after the trees growing in a long time, like a tail."

NALLAPOTULA : The members of this clan believe that they have originated from a black he-goat (which is called 'Nallapotu') hence the name 'Nallapotula'. **GULLA** : Traditionally, the Chenchus are semi-nomadic people. They used to move in groups. Most of the children born to one group were having boils on their body. Hence, they were given the clan name 'Gulla' meaning 'Boils'. **MANDLA** : One group of people used to worship their house-gods (Intidemullu) with 'Maredu Patram' (leaves of a kind of tree). So, they were given the clan name 'Mandla'. **CHIGURLA** : The ancestors of these families selected only 'Chinta Chettu' (Tamarind tree) as their habitat and used to eat the tender tamarind leaves called 'Chigurla' in 'Telugu'. Hence, the clan name 'Chigurla'. **INDLA** : Once there was a person who knew the technique of constructing 'Indlu' (house). So, his progeny is known as 'Indla'. **GARABOINA** : The clan name 'Garaboina' was derived from the name of a tree 'gara' which was said to have been reared by the ancestors of Garaboina clan members. **JALLI** : Traditionally, there was a group of people, who used to eat a kind of fish called 'Jallalu'. So, their descendants were grouped under the clan name 'Jalli'.

AVULA : Once upon a time a man killed a cow. As a consequence of the curse of the dead cow, still births occurred in successive generations. To overcome the curse of the cow, they worshipped the cow and decided to have their 'intiperu' (surname) as *Avula*. 'Cow' is called 'Avu' in Telugu and hence the clan name 'Avula'.

KATRAJU : This is a migrated clan. Once there was a person called 'Katraju', who was efficient in collecting food by hunting and fishing. Some Chenchus thought that they would also be efficient like him in such activities if they use the name 'Katraju' as their surname. In this way a new clan originated from the name 'Katraju'.

CHAVADI : It was said that a family began to live in the 'Chavadi' (the hall in the front portion of a house) after their immigration into the village Pechcheruvu. The members of the family were referred to after the word 'Chavadi' by the villagers as they did not know the clan of that family. So, the name 'Chavadi' has come into vogue as the clan name of the members of the family and their descendants. This is identified as a new clan.

GAZZALU : A group of people used to wear ornaments made of Soapnuts which produce sound of jingling bells called 'Gazzalu', in Telugu. So, they are called 'Gazzalavallu' which ultimately became their clan name.

PULICHERLA : Long ago, there were seven brothers and a sister. The family had a reputation for doing magical feats by using spells involving sprinkling of charmed ash and water. This created wonder and curiosity among the people around. The magical feats were such wonderful acts as assuming the form of a tiger, taking any shape they liked and so on. The brothers got their sister married. Their brother-in-law, who had also heard of the magical feats performed by his wife's brothers, became curious and asked her one day whether she also knew the art of magic. He became still more curious on being replied in the affirmative and asked her to demonstrate. She acceded to his request and handed over the child to her husband, giving some instructions to him as to the things he should do after she assumed another form. She gave him some ash saying that when he felt satisfied at the changed form she took at his bidding, the ash should be sprinkled on her before any untoward thing happened. He must also protect himself and the child from any danger that might occur. He has agreed to follow the instructions. Accordingly, she announced that she would turn herself into a tigress. She assumed the form of a tigress and began roaring

and moving about ferociously. He watched it for a while with interest, but when the tigress began making dangerous advances towards him and the child, he frantically climbed up a nearby tree keeping the child in a sling hanging down from his back. For a while, he was stunned to see the scene and became panic-stricken. He began searching for the ash to be sprinkled on the tigress. In his frightened mood he dropped the child from his sling on the ground. The tigress devoured the child. At this, he lost his balance of mind and was nonplussed. The tigress, after eating the child, moved about growling ferociously. After a long time the tigress strolled into the jungle. Then the husband came down from the tree with great grief and anguish and reported the whole thing to his brothers-in-law.

All of them went in search of the tigress. Having found her in the deep forest, they sprinkled the charmed ash and water to convert her into a human being. But, alas, the upper part of the body of the tigress only could be converted into a human form, while the lower half remained that of a tigress. They realised that because the tigress had already eaten a human being, the efficacy of their magical ash sprinkling of charmed water had been reduced to half only and they failed to rescue their sister. Finding no other way, she got herself converted into a fullfledged tigress and went into the forest for food. This tragic incident connected with the magic feat of converting a human being into tigress by a family earned them the name of 'Pulicherla'. The word 'Puli' means 'tiger' in Telugu and hence the clan's name Pulicherla.

Tokala Naganna of Srisailam stated that the clan members were neither killing nor eating a tiger's flesh. But no such totemic taboo is observed now-a-days. *TOTEM*: Some clan names of the Chenchus are related to plants, animals etc. But they neither venerate nor propitiate these totems as explained in the earlier description. Since clan names like 'Tokala', 'Jalli' and 'Udotaluri' were derived from the act of killing animals, fish and squirrels, taboo on killing of these animals, fish etc. does not arise.

Some of the names of the clans and their etymological meanings are given in table 2.

Table 2
Clan—Totem

Sl. No.	Clan	Associated object
1.	Arthi	Banana
2.	Nimmala	Lemon tree
3.	Kudumula	Round or oval-shaped rice flour preparation cooked on steam
4.	Uttaluri	Squirrel
5.	Tokala	Tail
6.	Nallapotula	Black he-goat
7.	Bojja	Stomach
8.	Gazzala	Jingling bells
9.	Dasari	A kind of forest tree
10.	Pullicherla	Tiger
11.	Bhumani/Bhoomani	Forest pumpkins
12.	Indla	House
13.	Garaboina	Gara tree (a kind of forest tree)
14.	Jalli	Jallalu (a kind of fish)
15.	Avula	Cow
16.	Katraju	A person
17.	Chigurlla	Tender leaves
18.	Gulla	Body boil
19.	Mandla	Leaves of a kind of forest tree

III

It is always said that the Chenchus are an endogamous group with exogamous clans. Clan is the determining factor for choosing the partner for marriage. Marriages within the clan are prohibited as the members of the same clan consider themselves as brothers and sisters, but very rarely do we come across such types of marriages. During the recent field survey, one case was found in village Marripalem in Prakasam district, in which married couple belonged to the same clan. The groom was married to his own uncle's daughter (cousin sister). The villagers feel ashamed of revealing such incestuous marital relations. According to them, such cases are considered in tribal Panchayat, only after either of the families report the matter to the tribal elders. Others do not interfere.

Regarding marriage alliances, we can divide the clans into three categories, as under :

(i) Some clans are brother clans which are believed to be related to one another, consanguineously. Marriages should not take place between these clans. Each clan has its brother clans.

(ii) Some clans are eligible for marriage alliances, if they are in the classificatory kinship relation like mother's brother's daughter / son ; Father's sister's son / daughter ; or sister's daughter.

(iii) Some clans are considered neutral. Persons of these clans can choose their partners from any other clan. Traditionally, these clans are brothers to some clans. Gradually, due to increase in population there might have occurred disturbances in the marital relations resulting in the formation of neutral clans. Neutral clans are very few. Table 3 shows different clans and the other clans permitted to have marriage alliances with them.

Table 3
Clan and Marriage Alliance

Clan	Preferring Marriage Alliance with the Clans
1. Kudumula	Bhumani, Uttaluri, Dasari, Jalli, Tokala, Gulla, Pullicherla, Damsam, Chigurlla, Arthi, Baramala, Nimmala, Mandla.
2. Bhumani	Kudumula, Chigurlla, Dasari, Arthi, Nimmala, Garaboina, Jalli.
3. Damsam	Kudumula, Dasari, Nimmala, Chigurlla, Jalli.
4. Pullicherla	Arthi, Dasari, Kudumula, Gulla, Jalli, Baramala, Nimmala, Uttaluri.
5. Jalla	Nallapotula, Bhoomani, Kudumula, Damsam, Dasari, Gulla, Pullicherla, Nimmala, Uttaluri, Arthi.
6. Arthi	Bhoomani, Pullicherla, Dasari, Gulla, Mandla, Kudumula, Baramala, Jalli.
7. Gulla	Kudumula, Arthi, Jalli, Pullicherla, Baramala, Dasari, Mandla, Nimmala, Chigurlla, Garaboina, Uttaluri, Topi.

Clan	Preferring Marriage Alliance with the Clans
8. Chigurlla	Damsam, Nallapotula, Mandla, Nimmala, Tokala, Bhoomani, Kudumula, Dasari, Baramala, Garaboina, Gulla, Uttaluri, Topi, Thota.
9. Nimmala	Uttaluri, Bhumani, Mandla, Chigurlla, Katraju, Tokala, Jalli, Kudumula, Baramala, Pulicherla, Damsam, Gulla, Chigurlla.
10. Dasari	Arthi, Bhumani, Pullicherla, Jalli, Uttaluri, Kudumula, Gulla, Nagula, Damsam, Chigurlla, Topi, Thota, Mandla.
11. Mandla	Nimmala, Chigurlla, Tokala, Gulla, Arthi, Kudumula, Dasari, Uttaluri, Thota.
12. Baramala	Gulla, Pullicherla, Kudumula, Arthi, Chigurlla, Uttaluri, Nimmala.
13. Tokala	Chigurlla, Kudumula, Mandla, Nimmala.
14. Uttaluri	Nimmala, Kudumula, Dasari, Chigurlla, Gulla, Mandla, Topi, Thota, Pulicherla, Jalli, Baramala.
15. Nallapotula	Chigurlla, Jalli.
16. Thota	Chigurlla, Dasari, Mandla, Uttaluri, Topi.
17. Nagula	Dasari.
18. Katraju	Nimmala.
19. Topi	Arthi, Dasari, Indla, Thota, Uttaluri, Chigurlla.

IV

Among the Chenchus, practically there is no difference in the status of clans. Different villages give preferences to different clans for selection of political and social leaders. In every village, there are three marriage functionaries called Raju, Mantri and Kolagadu who are selected from different clans. In villages Pedamantanala, Marripalem, Allipalem, Byrluti, Nagaluty and Pechcheruvu in

Prakasam and Kurnool districts, Raju is selected from the 'Bhumani' clan, Mantri or Pradhani from Kudumula clan and Kolagadu from Dasari or Uttaluri or Mandla clan. In village Srisailam in Kurnool district, and Mannanoor in Mahaboobnagar district, Raju is selected from Tokala clan, Mantri from Bhoomani clan and Kolagadu from Uttaluri clan. But no particular status is assigned either to these persons or to the clans to which they belong. At the time of betrothal ceremony, these persons play an important role. The groom's parents are accompanied by these three functionaries for the fixation of marriage ceremony. In village Marripalem, the informants told that any person from Bhoomani, Kudumula and Dasari clans can act as Raju, Mantri and Kolagadu respectively. At the time of the betrothal ceremony, they carry even children from those clans in absence of elders to act as Raju, Mantri and Kolagadu. Kolagadu acts as priest in the marriage ceremony.

Persons belonging to the same clan closely cooperate with one another in various activities. The Chenchus consider clan as a unilineal group having common mythical ancestors. All the clan members consider themselves as brothers. All the clan members participate in each of the family ceremonies like puberty, marriage, death etc. 'Pollution' is observed by all the clan members. It is a custom among the Chenchus to invite all the members belonging to the same clan on the occasion of death ceremony. Message of the death is conveyed to the clan members as they have to observe 'pollution'. If they go against this custom, other members of that clan raise serious objections and such act is treated as a social offence and the person responsible is fined heavily. During the 'pollution' period, they do not touch the neighbouring people. Persons belonging to another clan do not attend the funeral ceremony. They neither touch the dead body, nor go to the burial ground for fear of 'pollution'. A deadbody is carried by the clan members only and not by the kinsmen. A married daughter does not observe the mourning period for her parent's death.

During marriage, clan members exhibit more co-operation in making it a success. Great economic co-operation is expected between the members of the same clan. They help one another in economic pursuits. In the construction work of a house, clan members extend their services to the house owner. Thus, a clan is a unit of corporate activity among the Chenchus.

V

Family is the basic social unit among the Chenchus and it influences the individual in every phase of his life. From the nature of their composition the Chenchu families may be grouped into several categories, according to the number of families and their residential and socio-economic relations. Among the Chenchus, we can identify three such categories, viz ,

- 1) Simple or elementary family,
- 2) Polygynous family, and
- 3) Joint family.

1) *Simple or elementary family :*

This type of family consists of husband, wife and their unmarried children. After marriage, the couple establishes a separate nuclear family. Again, we can identify several categories under elementary family :

- a) **A type :** It includes parents and unmarried children only.
- b) **B type :** In rare cases, an old & widowed parent or father-in-law / mother-in-law may stay with a married son or daughter, with or without their children.
- c) **C type :** In this category, a divorced woman or a widow is married to a widower or bachelor with the dependent children of the previous union.

Table 4
Types of Family

Sl. No.	Villages	No. of family.	Simple or Elementary			Polygynous	Joint or Extended	Total.
			A	B	C			
1.	Mannanoor	48	25	12	1	—	10	48
2.	Vatwarlapalle	22	15	6	—	—	1	22
3.	Pullaipalle	3	2	—	—	1	—	3
4.	Appapurpenta	10	5	3	—	—	2	10
5.	Rampur	6	5	1	—	—	—	6
6.	Farahabad	13	9	4	—	—	—	13
7.	Byrluti	54	34	6	2	2	10	54
8.	Nagaluty	24	19	3	1	1	—	24
9.	Pechcheruvu	24	18	3	—	3	—	24
10.	Pothurajupenta	8	7	—	—	1	—	8
11.	Srisailam	67	43	16	2	2	4	67
12.	Peddamanthanala	39	16	5	1	5	12	39
13.	Allipalem	26	15	6	—	1	4	26
14.	Chilkacherla	31	23	8	—	—	—	31
15.	Marripalem	37	23	9	—	1	4	37
Total		412	259	82	7	17	47	412
Percentage		100	62.86	19.90	1.7	4.13	11.41	—

(2) *Polygynous family :*

In the polygynous type of family two or more wives live together with their respective children. Here, two simple or elementary families are grouped together by a common tie, the husband. All of them share a residence. This type of family is rarely found among the Chenchus.

(3) *Joint or extended family :*

This type of family is also rare among the Chenchus. These families are of two types :

(i) One is the vertically extended family in which married sons or daughters live with their parents.

(ii) The other is horizontally extended family in which married brothers live together with their respective children. Sometimes married brothers, old parents and unmarried brothers or sisters live together. We, however, rarely came across the families in which married brothers live together under the same roof. The main reason behind this is the prevalence of a strong belief that if two married brothers live together, the elder brother is often murdered by the younger one to acquire his wife and property. This was clandestinely committed in the forest during honey collection and hunting in the olden days. But, nowadays murders of this type are not committed. No such case was reported during the field survey. Some persons of the older generation informed that this type of case occurred frequently in their childhood. Tokala Naganna of Srisailam narrated a story which he had heard from his father. The story runs as follows : 'One day two brothers went into the forest for hunting. After two days, the younger brother came alone and said that his elder brother was killed by a tiger. Then he married his brother's widow. He also took care of his elder brother's children. But it was reported by the neighbours that they had seen the elder brother killed with an arrow shot in the forest.'

The informant also told that levirate is practised not only to acquire the deceased brother's wife, but also to inherit the brother's share of paternal property. Table 4 shows different types of families existing in the villages under survey.

According to table 4, the number of simple or elementary families or "A" type families is 259 out of 412 surveyed, constituting 62.86% to the total.

Out of the 412 families, 82 were found to be elementary "B" type families. In 2 cases out of these 82, the widowed mothers-in-law, and in 3 cases, the fathers-in-law were found living with their sons-in-law. In the remaining cases, aged fathers/mothers were found living with their married sons. "B" type families constitute 19.90% to the total.

7 elementary families of "C" type were noticed. The dependent children of previous marriage were found to be living with their step-father in 3 cases and with their step-mother in 4 cases. The percentage of "C" type families to the total is 1.71%.

The total number of polygynous type of families was 17. The percentage of this particular type of families was 4.12. There were 2 families out of these 17, which were established by the sororate-type of marriage where 2 sisters lived as co-wives. One case was that of Jalli Naganna of Pothurajupenta, who had married 2 sisters. He said that he had to marry the second sister, because she could not find a husband and there was no one to take care of her. Now, these two sisters were found to be living peacefully under the same roof with their husband and their respective children.

The second case was that of Gulla Totayya of Byrluti, who had also married two sisters and was living with his wives and children in one house. In the remaining cases the wives were not related consanguineously. In such cases, generally the first wife is acquired through regular marriage and the second wife by elopement. No man was found to be having more than two wives.

Joint or extended families were 47 in number, constituting 11.41% to the total. Out of the 47 families living jointly, there were 31 in which parents lived with their married sons and unmarried children. In 10 families, married brothers were living together. In 6 cases, the sons-in-law were found to be living with their respective fathers-in-law after marriage, indicating prevalence of matrilocal residence as part of marriage by service agreement.

VI

The Chenchu society is patriarchal and patrilineal. After marriage, the wife lives in her husband's place. Generally, the Chenchus prefer marriages within the village. In these cases, a wife need not go to another village, as her husband's residence is in the same village. If they do not find a suitable spouse in their

village, only then they prefer an outsider. In such cases, a wife goes to the husband's residence to live with him. In some exceptional cases, a son-in-law goes to his wife's native place and establishes a separate family there. Table 5 gives some typical examples of change of residence of a groom after marriage.

Table 5
Change of Residence

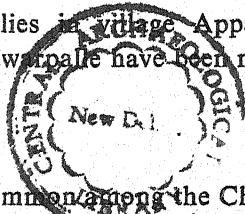
Sl. No.	Name	Birthplace	Present Matrivillage Residence
1.	Dasari Samiranna	Chama	Byrluti
2.	Tota Guravayya	Ruarakota	Peddamanthanala
3.	Dasari Subbaraidu	Dargiya	Peddamanthanala
4.	Gulla Lingaiana	Byrluti	Srisailam
5.	Garaboina Ramanna	Byrluti	Srisailam
6.	Jalli Linganna	Nagaluty	Srisailam
7.	Kudumula Venkateswarlu	Telugumancheru	Srisailam
8.	Uttaluri Yallaiah	Venkatesulabavi	Mannanoor
9.	Dasari Ramulu	Pedra	Mannanoor
10.	Kudumula Pedaboinna	Telugumancheru	Srisailam
11.	Uttela Nagamma	Byrluti	Srisailam
12.	Nimmala Nagaiah	Nagaluty	Srisailam
13.	Chigurilla Potanna	Pechchuruvu	Srisailam
14.	Jalli Mugenna	Nagaluty	Pothurajupenta
15.	Arthi Dharmayya	Nagaluty	Pothurajupenta
16.	Kudumula Bodiankulu	Marripalem	Pedamanthanala
17.	Tokala Nagaiah	Rampur	Appapurpenta
18.	Tokala Mallaiah	Rampur	Appapurpenta

The reasons for such shift to in-laws settlement were variously explained by the informants. According to some, the newly married girls generally do not like to go to their husband's residence if it is located at a distant place. Besides this, the persons who are married by service are compelled to stay with their fathers-in-law. In such cases, sons-in-law settle with their wife's parents. In some cases, sons-in-law might have gone to live in their native village. Then, they prefer to go to their wife's village or to father-in-law's residence.

It is observed that joint family is very rare in villages where the

Chenchus are dependent upon hunting-gathering economy. In village Pedamanthanala, the Chenchus have taken to agriculture. In this village there are more joint families, in comparison with other villages. Horizontal joint families are not uncommon here, as agriculture needs a number of farm hands. Kudumula Venkatayya, a resident of this village reported the same. In such cases, property is not divided. Father and sons or brothers undertake agriculture jointly. Venkatayya said that there were no joint families in the time of his grandfather when they solely lived on hunting-gathering economy. It was also reported by the informants of other villages that there were no joint families previously. This indicates that formation of a joint family is a new phenomenon among them, which is related to agriculture. In the villages like Mannanoor and Byrluti where rehabilitation work was undertaken, there were 10 joint families in each village. Most of them stated that the married sons would be shifted to new residence after the construction of new houses. In agricultural village, Marripalem, and in the pilgrim-centre village Srisailam, 4 joint families were found in each village. In village Srisailam, the male members of two families earn their livelihood as temple workers and those of the remaining 2 joint families male folks work as porters at the bus stand. In village Marripalem, all the 4 joint families have taken to agriculture. They do not employ agricultural labourers to work in their fields. They jointly undertake all agricultural operations and share the produce.

In food gathering villages like Pullaipalli, Pothurajupenta, Rampur and Farahabad not a single joint family was found. Two joint families in village Appapurpenta and one joint family in village Vatwarpalle have been noticed.



VII

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It is common among the Chenchus to establish a separate family after marriage or sometimes after having a child. Simple elementary family is a predominant feature of the Chenchu social system. Every person has a house of his own in which he lives with his wife and unmarried children. A few reasons, corroborated by some informants, are given below for establishing a separate family.

(1) The Chenchus live in small conical huts. These consist of only one room, hence it is very difficult to accommodate more than

one family. Newly married couple find it difficult to lead a private life in the presence of the parents. So, they prefer to establish a separate hut after their marriage.

(2) As the Chenchus live in forests, all the materials required for construction of a hut, are available free of cost from the forest. Construction of this simple hut also requires no expenditure on labour as the members of the family extend their cooperation. There is also no scarcity of land for the construction of a new hut. So, instead of living with his parents in a small hut, a married person prefers to establish a separate household. The hut may be a little far off from his parent's residence.

(3) The Chenchus are economically poor as they mainly subsist on hunting-gathering. It is very difficult to a man to shoulder the responsibility of the entire family and it is also difficult to collect sufficient food to sustain a large family under such conditions. This economic pressure leads to the establishment of a separate household, i.e., fragmentation of the joint or extended family.

Quarrels and wranglings are common in the joint family. This is also an important factor for the breaking up of the joint family system. If a person continues to live in his parent's house even after marriage, there is every possibility for dispute and altercation between the mother-in-law and the daughter-in-law or between the co-sisters.

VIII

It is a known fact that a single person cannot lead the family without the active cooperation of other members of the family. All the members of the family are assigned certain work individually to assist the head of the family. In a Chenchu family, the authority of the father is supreme. He manages the family affairs. If the father dies, the widow mother conducts the family affairs. We could notice strong ties of affection existing among the different members of a family.

An affectionate bond exists between husband and wife. Husband gives protection to his wife. He treats his wife as an equal partner in household work as well as in economic pursuits. He is expected to seek the advice of his wife in all important matters. Husband wears loin cloth called '*goche*' which is a piece of cloth torn from

the *sarees* of his wife. During night, he shares his wife's *sarees* to protect his naked body from cold.

Wife also participates in the economic activities of her family. She helps her husband during the collection of minor forest produce. Both husband and wife go together into the forest for the collection. She follows her husband even at the time of hunting, though she never takes part in it. At the time of honey collection she sometimes accompanies him. But, she never collects honey herself as it is forbidden in their society. At this time, she collects edible roots, tubers and fruits. The husband is respected by the wife. She can speak freely with her husband, even in presence of elder members. She never utters her husband's name. She uses teknonymy, i.e., to call him in the name of her child (father of so and so). Sometimes she addresses him with nick-name. In village Byrluti, Naganna's wife used to call him 'Potta'.

Besides having affection, husband also harbours suspicion in some cases about his wife's fidelity. Once he suspects that his wife is having sexual liaison with some other person, it leads to a dispute between them. If it is proved correct, it ends up in a divorce. He also lives in constant fear that his wife may elope with somebody.

A strong affectionate bond exists between the brother and the sister. Such an incident was observed in village Mannanoor. A brother brought his sister to his house in July, 1979 to protect her from being hit by the descending fragments of the American skylab which was feared to hit their village also in the process of disintegration. Further, if the falling skylab pieces hit their village, they wanted to die together.

Grand-father, grand-mother and other elderly persons of the family are shown due respect by the younger generations. Grand-parent-grandchild relationship is full of affection. There is pleasant joking relationship existing between them. Grandparents are addressed by them as 'Jejitata' and 'Jejavva'. Grand-parents entertain their grand-children by telling them folk-tales and about some exciting incidents that occurred in their earlier days. In the absence of their parents, children are taken care of by their grand-parents.

Father collects roots, tubers, honey, fruits and hunted animals and birds for the dependent children. Mother also collects roots, tubers, leaves and fruits for them. Father and mother are always respected in the family. Children are brought up under the direct care of the parents and in case of a divorce, they live with the mother.

Sometimes, it is observed that at the time of collecting fruits and leaves toddlers are carried on the back by the mother. Little boys and girls help their parents by keeping the young children under their care, while their parents are engaged in important economic activities.

The grown-up girls have no restriction in their movement. They are expected to acquire proficiency in the domestic affairs. She is also engaged in cattle or goat rearing. Many girls and boys have premarital sex experience. Young unmarried girls, however, do not drink. Their marriages take place after attaining puberty. If the father dies leaving minor sons and daughters behind, the eldest son takes care of them. If the eldest son is also too young to look after them, the uncle (father's brother) takes care of these minor children.

Brothers never believe each other. During honey collection from steep cliffs with the help of long ropes, strings and ladders there is danger of the elder brother being killed by the younger brother for acquiring the former's wife and property. Such incidents were reported to have happened in the past. So, the eldest brother prefers his wife's own brother to accompany him during honey collection.

There is no particular preference to a son or a daughter. Both are assets in their view. No difficulty is experienced for marrying off a girl. Parents need not search for the bridegroom as the groom himself comes in search of a girl. Besides this, bride's parents collect bride price from the groom's parents. A girl also assists her mother in the household duties. Like a girl, a son also is an economic asset. Before marriage, a son assists his father in the economic activities as well as in the household affairs. After marriage, he establishes a separate household of his own to avoid additional burden to his father. But, there were some rare instances where a son was preferred to a daughter. In village Peddamanthanala, a son is preferred to a daughter, according to some informants because he is expected to help his parents by performing heavy physical labour in economic activities, especially in agricultural operations. Yet, girls are not unwelcome. In village Farahabad, one case was reported where the husband resorted to second marriage as his first wife did not give birth to a son. In other villages, there is no special preference to a son or a daughter,

The old and infirm parents usually live with one of their sons.

The widower father or widow mother lives with his/her married daughter in absence of sons to support them. In some cases, old parents live in a separate house, but are fed with food from the son's or son-in-law's house. Nimmala Balaswamy migrated to his daughter's husband's village, Mannanoor, with her two dependent sons. Though she is living separately, she takes food in her daughter's house. Similar examples were reported from other villages also.

Each family is affiliated to a particular clan. Some families worship specific gods and goddesses as their family deities. In some villages, we find images of deities in their houses. All the members of the family worship these deities on the eve of festivals for securing family well-being. Married sons and daughters are invited to attend the household ceremonies. At the time of family feuds or scandals spreading in the family or confrontation arising out of differences of opinion among the members of the family, the elderly members of the family are required to settle the dispute amicably. In extreme cases, when these family disputes cross the family barrier and reach the public, the co-villagers are informed and finally the case is placed before the 'Kula Panchayat' for settlement.

Villages form important social units with territorial boundary where the families of different clans foster cordial relations in pursuing socio-religious or economic activities.

IX

The Chenchus are an endogamous group with exogamous clans. There is no taboo to choose the life partner within the village. Generally, they prefer marriages within the village and within the circle of the relations.

Monogamy is the most prevalent form of marriage among the Chenchus. Polygyny is also practised, but it is rare. During the field survey it was noticed that out of 412 families, only 16 persons were having two wives each. The study revealed that the first marriage of a man, in almost all cases, takes place with a virgin and the second or third marriages are settled with a widow, a divorced woman or one who has deserted her husband. Generally, the first wife is taken with the consent of the elders after going through the elaborate ceremonies, whereas the second wife is acquired by mutual consent or by elopement. Marriageable age varies between 16 and

19 years in case of girls and between 20 and 24 years in case of boys. Marriage by negotiation demands many formalities, and bride-price is to be compulsorily paid. This is generally settled and paid at the time of betrothal ceremony and the price is paid to the bride's maternal or paternal uncle.

Marriage by negotiation is locally called *Kudurchukonna Pelli* (arranged marriage). When a Chenchu boy attains marriageable age, the boy's parents search for a suitable bride for him. After spotting such a girl, the boy's parents approach the girl's parents. With the consent of the bride's parents, the groom's party visits the bride's house for the initiation of marriage proposals. The groom's parents are accompanied by the social functionaries selected for the occasion, such as, *Raju* (King), *Pradhani* (*Mantri*-Minister) and *Kolagadu* (Measurer). These designated persons play an important role in the betrothal ceremony. Sometimes, the parents of both sides fix up the marriage ceremony without the involvement of others, if they are relatives. In the village Allipalem, Kudumula Pedareddy-tata gave his daughter to a boy of distant relationship. Being relatives, both the families knew each other very well. One day the groom's parents came to his house seeking his daughter in marriage and stayed for two days in his house after securing his consent. Again, after a week's time, the bride's parents went to the groom's house and fixed up the date of marriage ceremony. In this case, the social functionaries were not involved. But, when marriage negotiations take place outside the relatives' circle, the presence of the social functionaries is essential. These functionaries, besides being witnesses to the terms and conditions, also help in the smooth performance of betrothal and subsequent ceremonies. The following case study illustrates the details of the various stages of negotiations, gifts to be exchanged in betrothal ceremony, etc.

'In village Marripalem, Chigurla Bianna celebrated his daughter's marriage six months back. The bridegroom was also residing in the same village. One day the groom's parents came to the house of Bianna seeking his daughter in marriage. They were accompanied by *Raju*, *Mantri* and *Kolagadu*. The party carried with them some betel leaves, betel nut powder and two bottles of liquor. *Raju* initiated the proposal by informing Bianna that the purpose of their visit was to seek the hand of his daughter in marriage. Then Bianna explained the good qualities of his daughter. *Raju* turned towards the groom's parents and narrated the character of this girl. He again

requested to fix up the marriage, if they selected, her. The groom's parents gave their consent. 'Kolagadu' took the liquor of two bottles brought by the groom's party and demanded 16 Pavus (a 'Pavu' : 100 gr. measure). After consulting both the parties Raju announced that marriage should take place within one month. All of them took betel leaves and betel nut powder *Tambulam* as a token of agreement. Liquor was served to them. The betrothal ceremony was thus concluded.'

Marriage must be performed within the stipulated period agreed upon at the time of the betrothal ceremony. Otherwise, the marriage agreement stands cancelled after that period and the bride's parents are free to perform their daughter's marriage with another person. If a person breaks the marriage agreement by performing his daughter's marriage with another person within the stipulated period, or if his daughter elopes with another person, the case is referred to the tribal panchayat. The bride's parents are usually asked to pay the compensation to the groom's parents. Chigurilla Bianna of village Marripalem said that the bride's parents have to pay at the rate of Rs. 25.00 per 'Pavu' (100 gr. measure) of liquor which was measured and demanded at the time of the betrothal ceremony by Kolagadu, if they violate the marriage agreement. Raju, Mantri and Kolagadu give evidence at that time. In this village, Raju is selected from the Bhumani clan, Mantri from Kudumula and Kolagadu from the Dasari clan. The presence of these social functionaries is required at the time of the betrothal ceremony; otherwise, they may lodge a complaint against the persons responsible for violating the rule.

Some Chenchu fathers, having marriageable daughters, who are liquor addicts but have no means to buy it, sometimes barter their daughters for liquor. The poor father approaches an eligible young man, who can afford to give him some money to buy liquor with or who has a liquor shop, addressing him as "Alludu" (Son-in-law), "I shall give you my daughter in marriage if you give me some liquor". If the young man agrees and serves him liquor, then the girl is married off to him as committed by the father. If the girl's father does not keep his promise and gives his daughter in marriage to another person, it is considered *Tappu* (offence) and he is liable to pay the compensation to the latter. Similarly, the prospective bridegroom is also punished by 'Kula Panchayat' who imposes a fine, if he fails to keep up his word to marry a girl in exchange of liquor as revealed by the following case study.

'Bhumani Naganna of the village Marrisipalem gave two bottles of liquor to Mekala Ankatayya for securing the hand of his daughter in marriage. Ankatayya promised to give his daughter in marriage to Naganna under the condition that he should marry her within one month. But Naganna did not marry Ankatayya's daughter. He married another girl. Consequently, Ankatayya gave his daughter in marriage to another person. But, one day Naganna came to the Ankatayya's house in a drunken condition and demanded him either to surrender his married daughter to him or to give back his liquor. Ankatayya lodged a complaint with the 'Kula Panchayat'. Naganna was summoned to the Panchayat. He was imposed a fine of Rs. 125.00 as penalty for having married another girl instead of Ankatayya's daughter. He agreed and paid Rs. 100.00 as compensation to Ankatayya and Rs. 25.00 as sitting fees to the village elders for settling the dispute.

X

Cross-cousin marriage among the Chenchus is the most preferred alliance. Generally, maternal cross-cousin (mother's brother's son) or paternal cross-cousin (father's brother's son) or maternal-uncle (mother's brother) is given first preference in the matter of selection of bridegroom.

During the field survey, 154 marriages out of 412 cases studied were found to be between cross-cousins of one type or the other, constituting 37.36% to the total. Of these 154 cross-cousin marriages, maternal cross-cousins were preferred in 80 cases and paternal cross-cousins in 74 cases. 46 cases of uncle-niece marriages were noticed. Table 6 shows the number and percentage of distribution of marriages by relationship.

Table 6
Types of Marriages

Relationship	No. of cases	Percentage
1. Maternal cross-cousin	80	19.42
2. Paternal cross-cousin	74	17.96
3. Uncle-niece marriages	46	11.16
4. Wife's sister (sorrorate)	11	2.67
5. Deceased elder brother's wife (levirate)	6	1.46
6. Father's sister	1	0.24
7. Outside prescribed relatives'	194	47.09
Circle (not related)		

The above marriages include the second marriage also. Cross-cousin marriages are preferred for strengthening their existing relations. In this type of marriage, bride-price need not be paid. If no suitable cross-cousin could be secured for their daughters, then only the bride's parents seek marriage outside the relatives' circle. At the time of the betrothal ceremony, the bride's maternal or paternal uncle, who has a son for marriage is also invited, if the alliance is outside the relatives' circle, to whom bride-price is given by the groom's parents.

'Bianna of village Marripalem was not in favour of giving his daughter's marriage to her maternal uncle's son, as he was not considered a suitable candidate to marry his daughter. At the time of the betrothal ceremony of his daughter with another Chenchu youth, he sent for the groom's parents, who came from another village, to the house of the bride's maternal uncle. They told him that they had come to seek the hand of Bianna's daughter in marriage to their son and enquired of him whether there was any objection from his side, as he was also having a son of marriageable age. The bride's maternal uncle left it to Bianna's discretion. The groom's party came back to the bride's house along with the bride's maternal uncle and conveyed his decision to Bianna. In the presence of the elders, Bianna said that he did not want to give his daughter in marriage to his son. Consequently, the bride-price was fixed and paid to the bride's maternal uncle as compensation by the groom's parents before the marriage ceremony. The villagers informed that a girl should invariably marry her cross-cousin without payment of bride-price according to their tradition. If the girl is married off to a person other than her cross-cousin, then bride-price is to be paid to bride's uncle (father of her cross-cousin), so that he can secure another girl for his son with the compensation paid to him. In the absence of a paternal or maternal cross-cousin, bride-price is collected by the bride's parents. The bride-price is known as *Voli* in the local parlance. If marriages are fixed without the consent of the bride's uncle (who has a marriageable son), it is considered a serious violation of tribal law and it is brought to the notice of the village Panchayat. Bride-price now-a-days ranges between Rs 20.00 and Rs. 80.00. The bride and the bride-groom have no say in the choice of their marriage partners and have to invariably submit to the decision of their parents.'

The frequency of marriages outside the relatives' circle is also high among the Chenchus as is evident from Table 6.

XI

As many as 61 cases of marriage by elopement have been recorded. Such marriages are socially accepted among the Chenchus, their percentage being 14.88 as per the sample survey. This is resorted to either by the young Chenchus to circumvent opposition of their parents or to elope with an already married woman or man. The villagers of Marripalem said that no difficulty is faced in regularising the elopement of unmarried couple. The eloped couple take shelter in some other village for a few days and come back to their village. However, payment of compensation in lieu of bride-price to the father of the eloped girl by the man who enticed her is an a-priori condition for affording social recognition to the wedlock of their own choice.

But the problem arises when a person eloped with a married woman. They hide in another village or live in the deep forest for some time. The former husband discovers the place where they are living and report it to the Village Panchayat. A direction is sent to the man with whom the woman eloped to attend the Panchayat. The Panchayat decides that the second husband will have to pay a compensation commensurate with the marriage expenses incurred by the former husband and the expenditure incurred in connection with the sitting of the Panchayat to the former husband, so that the former husband can marry another girl with the help of the compensation money. The eloped couple establishes a separate family in the village and their union is recognised by the villagers. An analogous case was noticed in village Marripalem during the field survey.

'Kudumula Naganna's wife, Guramma, eloped with Eeranna of the same village in the absence of her husband. They went to the distant village. After a week, Naganna came back to his native village and was informed of the elopement of his wife. Naganna found out the place where they were living. He lodged a complaint against them and demanded convening a Panchayat. The mother of the man with whom the woman eloped was sent to call them back. After their arrival, the eloped man was asked to pay the compensation to the former husband comprising the marriage expenses incurred and the bride-price paid by the first husband, besides the expenditure involved for the sitting of the Panchayat. After payment of the compensation, their union was recognised by the villagers. Now, they are residing in the same village.'

XII

Love marriage or marriage by mutual consent is distinguished from marriage by elopement by the absence of elopement by the lovers, because it does not violate the existing marriage rule. Further, both of them announce their intention to marry and seek the permission of their respective parents, besides requesting them to perform their marriage as per custom. Generally, in such cases, clan exogamy is usually observed. Of course, there are a few exceptions when village elders condoned the parties by levying a little fine in cash, which was used for purchasing liquor. Marriage by exchange is also a negotiated form of marriage and it is recorded only in 7 cases when marriageable girls and boys of two families were exchanged. No bride-price is paid for such marriages.

Tokala Chinnamallaiah of Appapurpenta mentioned that 'marriage by service' is also resorted to for acquiring a wife. It is locally called 'Illiatam', according to this informant. Though other villagers also agreed to the existence of this practice long time ago, no case was found during the field survey. In most of the villages, this form of marriage is unknown. In case of marriage by service, according to the informant, generally bride-groom happens to be very poor and cannot afford to pay bride-price. So, he offers his services to the prospective bride's family for a stipulated period of staying with them. He usually establishes a separate unit after serving the family for the agreed period.

Levirate marriage or marrying one's own elder brother's widow seems to have been practised until very recently. But, nowadays it is on the wane, because of the influence of the neighbouring plains people, who equate their elder brother's wife with their mother. During the field survey some villagers told that this type of marriage is strictly prohibited as she (elder brother's wife) is equivalent to their mother. However, 6 cases of levirate marriage were traced, out of the total of 412 marriages surveyed, constituting 1.56% to the total. In the Manual of Kurnool district, it has been observed that : 'Chenchu widows, like the wandering Lambadis, generally marry the brother of the former husband ; if there is no brother, they are allowed to marry others.'

'However, there is no rule that the widow should invariably marry her husband's younger brother. She is allowed to choose any person of her choice as her partner. Marriage with younger brother's

widow is strictly prohibited among the Chenchus. The elder brother strictly avoids the younger brother's wife, both by touch and commensality. No case of this type of marriage was recorded during the field survey.

Marriage with wife's sister is not uncommon among the Chenchus. 11 cases of sororate marriage were found, constituting 4.41% to the total. Marriage with father's sister, though not tabooed, is rarely found. One such case was found during the field survey.

Widow remarriage and marriage with a divorced woman are permitted. Sometimes, they are found to live with their children in a separate house without being married again. A divorced woman can marry a person of her choice, but the information about her divorce should be announced and approved by the Panchayat. In some cases, widows and divorced women are taken as second wives.

Marriage by negotiation, marriage by elopement and marriage by mutual consent were found to be dominant methods of acquiring wives among the Chenchus. Previously, elopement and love marriages were very frequent, but with the spread of education, various, employment outside the village, large-scale migration of plains people into the Chenchu habitat accelerating interaction with the advanced groups, marriage by negotiation seems to be on the increase.

XIII

Divorce means the cancellation of marriage contract. Divorce is initiated either by the husband or by the wife. No particular ceremony is associated with it. When a wife wants to be separated from her husband, she goes to her parental house or elopes with a man of her choice and never comes back to her husband's house. The aggrieved husband reports the matter to the elders. When a woman deserts her husband and stays with her parents, elders assemble at the house of the woman's parents along with the deserted husband. They collect the opinion of both the wife and the husband. Village elders are served liquor by the deserted husband. Parents are asked to repay the marriage expenses and bride-price to their deserted son-in-law. After payment of those expenses by the woman's parents, the marriage is deemed to have been dissolved.

There are several reasons for seeking divorce, such as, sexual

incompetency of the man or his drunkenness or ill-treatment by him or illegal sexual intimacy with another person or barrenness of the woman or mutual distrust due to marital infidelity.

A couple with marital incompatibility may live together for sometime. The strained relations may be expressed as mutual bickerings in day-to-day life. The wife expresses her non-cooperation by neglecting her husband in such routine services as supplying water, serving food, making fire etc. Coition is also stopped between them. Verbal warfare between husband and wife may be a daily affair. The co-operation between wife and husband in attending to domestic chores and economic activities may completely break-down. The husband starts beating his wife severely. This strained relations may get corrected as the days go on, or may worsen and become unstable. This may result in the wife's going away to her parents' house or eloping with another man.

In the absence of her husband, sometimes, the wife seeks sexual gratification through another person. This may ultimately lead to elopement. Later, this case is brought to the notice of the village Panchayat and after payment of marriage expenses and bride-price to the former husband by the second one, divorce is ensured.

The tribal Panchayat sometimes gives both the parties time for rectification and reapproachment. Even then if the parties fail to reconcile and lead a normal family life, they sanction the divorce. Divorce is a frequently used phenomenon among the Chenchus. In all cases of divorce, the village Panchayat tries to convince the parties of either side about the necessity of a peaceful conjugal life and prevent separation.

XIV

In all societies, groups of people are bound together by various kinds of kinship bonds, like bonds of blood between parents and children, between siblings and affinal bonds, between spouses and their relatives on either side. Personal contact and inter-personal behaviour from one person to another differs according to the degree of relationship and in conformity with the value of attitude and norms of behaviour decreed by tradition. Among the Chenchus, we can identify six categories of behaviour pattern, which are shown in Table 7.

Table 7
Categories of behaviour pattern

Type of behaviour	Maintained with various kinsmen
1. Respect	... Fa, Mo, el Br, Fa, Si, Fa el Br, Fa yo Br.
2. Reserved	... el Br, yo Br, Hu, Mo, Hu Fa, Wi Fa, Wi Mo, Hu el Si, Wi el Si, Hu el Br, Mo Br, el Da, Fa el Si Da, Da Hu, Fa el Br So.
3. Informal	... Fa Fa, Mo Fa.
4. Intimate	... el Si Hu, Fa Si So, Mo Br So, Wi Br, Si Hu, Mo Si So, Fa Br Da, Mo Si Da, Hu Br Wi, So Wi Mo, Da Hu Mo, Da.
5. Avoidance	... Hu Fa, Yo Br Wi, Hu el Br, Da Hu, So Wi, Wi Mo, Wi Fa.
6. Joking	... So So, Da So, Si Da, Da Da, So Da, Mo Br yo Da, Fa (yo) Si Da, el Br Wi, Wi Si, Hu Yo Si, Wi, Hu Yo Br.

Respect is shown through submissiveness and obedience. Generally, persons show respect to the elderly and submissiveness to the dominant persons. For instance, among Chenchus the son shows respect and submissiveness to his father, who is elderly as he belongs to the higher generation, and dominant as the authoritative head of the family. While walking together, the son walks behind his father. Even when the son establishes a separate family, he continues to take advice from his father. The behaviour of children with the mother is not strictly of the rigid submissive type. Though they show respect to their mother, they are more intimate with their mother than with the father. Chenchus also show respect to the father's brother. His advice is sought after in many social and economic matters if the father is dead. If the father dies leaving minor children, the paternal uncle takes the responsibility of bringing them up. The paternal aunt (Fa si) is also respected at par with one's own mother if she is fairly old in age. Similarly, the maternal uncle is also respected. During the hair tonsure ceremony, the maternal uncle first cuts the child's hair. In some places, certain ceremony is observed to ward off the evil effects of the first appearance of tooth in the upper jaw. The maternal uncle alone is privileged

to offer worship to God Hanuman (Lord Monkey), who is believed to shield the child against all kinds of harm and diseases. Before finalising the marriage ceremony, the maternal uncle is consulted and his consent is obtained. The grand-father, grand-mother and other elderly persons of the family are paid due respect by the younger generation. The husband is shown due respect by the wife, though they are life-mates. In some villages it is found that the wife never sits on the cot in presense of her husband or other elderly male members.

The female ego is expected to be subdued in the presence of her husband's father, husband's elder brother, husband's elder sister, and she is required to maintain a respectable distance and sober relations with them. The behaviour of the Chenchus with their brothers is, however, of a reserved type, as they are generally found to be suspicious of each other's intentions. Mutual jealousy and suspicion contributed to the predominance of nuclear families. Very rarely, two brothers are found to live in a horizontally extended family. A brother does not accompany another brother, while going into the forest on a honey collection expedition, for fear of being murdered by the brother. The motive for such killings is to acquire the share of his property and his wife. Even in their childhood, brothers do not mix with each other intimately. Reserved type of behaviour is also shown to certain types of female relatives. The male ego is expected to be reserved in his behaviour with his mother's brother's wife, mother-in-law, wife's elder sister and father-in-law. They generally maintain some distance and talk to each other only when occasion demands.

Informal relations exist between grand-parents and grand-children. Both of them are friendly to each other. Grand-parents entertain them by telling stories and transmitting tribal lore and customs by their tongue. Grand-children are looked after by their grand-parents when the parents are engaged in their daily bread-winning activities. Though their mutual relations are informal, grand-parents are given due respect by their grand-children.

Intimate type of behaviour is mainly found between a Chenchu and his wife's brother or sister's husband. In socio-economic matters, a person is found to be intimately associated with his wife's brother and sister's husband. Even though a brother and a sister are eventually separated after marriage, their intimate contact is always maintained. Relations between a wife and her husband's

younger sister are also affectionate. A sister often advises her brother about seeking a proper marital alliance for him. Sometimes, she may also agree to give her daughter in marriage to her brother as uncle-niece marriages are permissible among the Chenchus. The daughter's relation with the mother is also very intimate. The daughter helps her mother in domestic duties. At the time of puberty and pregnancy the daughter is assisted by her mother. An intimate relation exists between a Chenchu and his paternal aunt, and between the Chenchu and his maternal aunt. Unlike brothers, an affectionate bond exists between the sisters. They assist each other in their difficulties. Wife and husband are also closely associated with each other. They go together into the forest. Both of them help each other in domestic and economic pursuits. Sometimes, she addresses her husband with a sweet nick-name. Teknonyms (the naming of the parents from the child, i.e., addressing the spouse as so and so's parent) name is also used by both the father and the mother in addressing each other, as a wife and a husband hesitate to address each other by their real names.

Among the Chenchus, joking is a standardised pattern of behaviour permissible in the case of certain categories of relatives. Joking relations exist between a man and his wife's unmarried younger sister. The husband has the permissive authority to joke with her. When the wife and her younger sister engage themselves in a chit-chat, he can catch hold of the hand of the wife's sister and say jokingly, "I want to elope with you because my wife is unworthy". She faces this joke with a clever reply saying, "I shall marry you after my sister's death". Sometimes a Chenchu marries his wife's sister after his wife's death. By custom, he is permitted to marry his wife's younger sister, even when his wife is alive and living with him, usually with her consent.

Pleasant joking relationship is also observed between grandfather and grand-daughter and between grand-mother and grand-son. When grand-mother meets her grand-son, both of them exchange banter and levity. If the grand-son asks for small changes for purchasing sweets, she may reply—"I shall give it to you if you marry me".

Again, jocular relationship exists between an uncle and his unmarried niece and between cross-cousins. A Chenchu usually addresses his female cross-cousin or his unmarried niece with words

like "Oh ! Padusu", meaning thereby "Oh, Young Lady". The villagers of Marripalem reported that banter and levity between joking relations may even have a sexual tilt.

The Chenchus also permit jokes with the elder brother's wife. A good number of villagers told that they cut jokes with their elder sister-in-law only in the absence of her husband, lest the elder brother may misunderstand and the matter may lead to serious consequences. Some Chenchus equate the sister-in-law with their mother and hence they do not indulge in jokes, especially those relating to sex, with her. In the days gone by, levirate, i.e., marriage with the deceased elder brother's wife was frequent, but in modern times it is rarely practised. This practice seems to have been on the wane mainly due to their contact with their Hindu neighbours among whom an elder brother's wife is treated as mother. But still a Chenchu elder brother suspects his younger brother in this regard. Jocular relationship also exists between a woman and her husband's younger sister.

Like respect, avoidance implies observance of certain formalities, such as imposition of some restrictions on intimacy and on spontaneous expressions of emotion. Avoidance is specific only with regard to some particular kinsmen.

Among the Chenchus, avoidance is observed mainly between an elder brother and his younger brother's wife. They avoid each other and they should not even dine together. According to the Chenchu tradition, they do not talk to each other. She should not expose her head or limbs in front of him, knowingly or unknowingly. It is said that there is taboo against touching the end of her cloth. In case of death, he does not touch even her corpse. If she finds her husband's elder brother coming in the opposite direction in the same way, she immediately changes her route, according to the villagers of Allipalem. Previously, they never used to eat food off the earthen plate or off the unwashed metallic eating-vessel used by either of them, while there was no such objection for others to eat off the same plate. But, of late, some of the Chenchus are not observing these rules strictly, especially in the developed villages. Avoidance of the wife's mother, husband's father, wife's elder sister is also observed but not as strictly as in the case with elder brother and younger brother's wife. Avoidance, though prevents intimacy, protects the society to some extent from the moral lapses.

XV

The Chenchu kinship terminology is mainly of classificatory type. It includes more classificatory terms and denotative terms. A denotative term is one which is applied to the relatives in a single kinship category as defined by generation, sex and geneological connections and the like. That is, one kin-term is used to indicate one relative only. Among the Chenchus, we find two denotative terms like *Magadu* or *Penimity*, which is used for the husband only and *Pendlamu* or *Bharya*, which denotes the wife only. These two terms of reference are never used to indicate any relative. The second type is classificatory in which the same term is applied to denote two or more kinship categories. For example, *Naina* is a classificatory term which refers to father, father's elder and younger brothers and mother's sister's husband. By virtue of the difference in age, the father's elder brother and younger brother are distinguished from father (*Naina*) by adding the prefix *Pedda* or *Chinna* respectively to the term *Naina* and, thus, giving rise to *Pedda Naina* and *Chinna Naina*. The classificatory terms are recorded in Table 8.

The above mentioned characteristic features of the Chenchu Social Organisation fit more into the Dakota type of Social Organisation of Murdock. This shows that their social system underwent changes from the past, i.e., from the Bi-Dakota type as reported earlier. The Bi-lateral characteristics have been weakened and patrilocal organisation is observed among the Chenchus under study, thereby acquiring the characteristic features of a typical Dakota-type. Another change to be noted in this connection is that, Haimendorf's study as quoted from Murdock reveals that the Chenchus in former times had no clan and kin groups. But at present a clear-cut clan organisation is found as in other tribes.

Among the Chenchus both denotative and classificatory terms are found. While there are only four denotative terms, the rest are all classificatory ones. Of these denotative terms, the first two are *Magadu* or *Penimity*, i.e., husband and *Pendlamu* or *Bharya* referring to the wife. Similarly, the other two terms, *Ayya* or *Naina* and *Amma* refer to father and mother respectively. These four terms are never used to indicate any relative other than the four mentioned above. It is also interesting to note that the denotative terms are available only in ego's generation. In no ascending or descending generations the said type of terms are found.

Classificatory terms, which are overwhelmingly large in number,

include more than one relative each. For each classificatory term, the relatives belong to one or more generations and may sometimes be of different sex. It is important to record that the classificatory terms, like denotative ones, are not restricted to one particular generation, but spread over to all generations. As such, we find that the term *Jejitata* includes FaFaFa, FaMoFa, MoFaFa and MoMoFa. Similarly, the term *Jejavva* covers a number of relatives belonging to third ascending generations like FaFaMo, FaMoMo, MoMoMo and MoFaMo. The terms *Tata* and *Avva* include father of father and mother respectively. The term *Peddanaina* marks both FaSiBr and MoelSiHu and *Peddamma* covers MoelSi, FaelBrWi. It is interesting to note that the term *Mama* includes relatives like MoBr, FaSiHu, HuFa and WiFa. That means, it clearly indicates there is existence of cousin marriage in this society. Identically, the term *Atha* which refers to kinsmen like FaSi, MoBrWi, WiMo and HuMo also signifies the prevalence of cousin marriage.

Classificatory terms are also prevalent in the ego's generation. The term *Anna* includes relatives like el Br, FaCiBrSo, HuelSiHu and MoelSiSo. Identically, the term *Bava* is used for a number of relatives like FaelSiSo, MoelBrSo, HuelBr, WielBr, elSiHu, DaHuFa (ms), SoWiFa (ms), So. The term *Maradalu* refers to MoyoBrDa, WiyoSi, yoBrWi, HuyoSi and FayosiDa. The term *Chellelu* stands for yoSi, FayobrDa, MoyoSiDa, HuyobrWi, WiyoBrWi and SoWi (y) and so on.

Table 8
Classificatory Terms

1. Jejitata	Fa Fa Fa, Fa Mo Fa, Mo Mo Fa, Mo Fa Fa.
2. Jejavva	Fa Fa Mo, Fa Mo Mo, Mo Fa Mo, Mo Mo Mo.
3. Tata	Fa Fa, Mo Fa.
4. Avva	Fa Mo, Mo Mo.
5. Ayya or Naina	Father.
6. Amma	Mother.
7. Chinnaina or Chinnayya	Fo yo Br, Moyo Si Hu.
8. Peddanaina	Fa el Br, Mo el Si Hu.
9. Chinnamma	Mo yo Si, Fa yo Br Wi.
10. Peddamma	Moel Si, Fa el Br Wi.

11. Mama	Mo Br, Fa Si Hu, Hu Fa, Wi Fa.
12. Atha	Fa Si, Mo Br Wi, Wi Mo, Hu Mo.
13. Anna	el Br, Fa el Br So, Hu el Si Hu, Mo el Si So.
14. Thammudu	yoBr, Fa yo Br So, Hu yo Si Hu, Wi yo Si Hu, Mo yo Si So.
15. Bava	Fa el Si So, Mo el Br So, Hu el Br, Wi el Br, Si el Hu, Da Hu Fa (ms), So Wi Fa (ms), So.
16. Bavamaridi	Wi yo Br, Fa yo Si So, Si yo Hu, Mo yo Br So.
17. Maradi	Hu yo Br (y), Wi yo Si Hu.
18. Maradalu	Mo yo Br Da (y), Wi yo Si (y), Br Wi, Hu yo Si, Fa yo Si Da.
19. Vadina	el Br Wi, Fa el Si Da, Mo el Br Da, Wi el Si, Hu el Si.
20. Akka	el Si, Fa el Br Da, Mo el Si Da, Hu el Br Wi, Wi el Br Wi, el So.Wi.
21. Chellelu	yo Si, Fa yo Br Da, Mo yo Si Da, Hu yo Br Wi, Wi yo Br Wi, yo SoWi.
22. Koduku	So, Br So (ms), Si So (ws) Wi Si So, Hu Br So.
23. Kuthuru	Da, Br Da (ms), Si Da (ws), Wi Si Da, Hu Br Da.
24. Kodalu	So Wi, Wi Br Da, Si Da, (ms), Br Da (ws), Hu Si Da.
25. Alludu	Da Hu, Hu Si So, Wi Br So, Br So (ws), Si So (ms)
26. Manumadu	Da So, So So, Br Da So, Br So So, Si Da So, Si So So.
27. Manumaralu	Da Da, So Da, Br Da Da, Br So Da, Si Da Da, Si So Da.

In the first descending generation also classificatory terms are significant by their presence. For example, we may refer to the term like *Koduku* which is appropriate for So, BrSo (ms), SiSo (ws), WiSiSo and HuBrSo. The term *Kodalu* describes kins like SoWi, WiBrDa, SiDa (ws), BrDa (ws) and HuSiDa. In the second and third generations (descending) kinship terms are all classificatory in nature. Kins like DaSo, SiDaSo and SiSoSo have a common term, *Manumadu*, while the term *Manumaralu* is common to DaDa, SoDa, BrDaDa, BrSoDa, SiDaDa and SiSoDa.

First Ascending Generation

The presence of both denotative and classificatory terms characterise this generation. Here, *Ayya* or *Naina* (Fa) is distinguished from *Peddannaina* (Fa el Br) or *Chinna Naina* or *Chinnayya* indicating Fa yo Br, and also from *Mama* (MoBr). Similarly, the term *Amma* (Mo) differs from *Peddamma* (Mo el Si), *Chinamma* (MoyoSi) and also from *Atha* (MoBrWi). The interesting feature in this generation is that the prefixation of the additional terms like *Pedda* and *Chenna* with *Amma* referring to mother, indicates Mo el Si and MoyoSi respectively, while in the second and third ascending generations prefixation of the additional terms like *Jeji* and *Jeja* with some kin terms, indicates a difference in generations. In this case, the prefixation of additional term indicates only difference of seniority in the same generation. In the same way, the term *Atha* referring to FaSi is distinguished from *Peddamma* (Fa el Br Wi) and *Chenamma* (FayoBrWi). Similarly, *Mama* (MoBr) is distinguished from *Peddannaina* (MoelSiHu) or *Chinna Naina* (MoyoSiHu). In the case of other terms also identical differences are noticed.

Second and Third Ascending Generations

In the second ascending generation FaFa and MoFa are referred to by the term *Tata*, whereas FaMo and MoMo have a common term *Avva*. In the third ascending generation also an almost identical picture is observed. In this generation, the term *Tata* which represents, as already stated, FaFa and MoFa, is prefixed by the term *Jeji* (i.e. *Jejitata*) and refers to kins like FaFaFa, FaMoFa, Mo MoFa and MoFaFa. Similarly, the term *Avva* which in the second ascending generation covers FaMo and MoMo, after prefixed by the term *Jeja* (i.e. *Jejavva*) represents FaFaMo, FaMoMo, MoFaMo and MoMoMo.

Ego's Generation

The most important feature of ego's generation, like that in the first ascending generation, is the presence of both denotative as well as classificatory terms. While in this generation the husband and the wife are having denotative terms (*Magadu* or *Penimity* and *Pendlamu* or *Bharya* respectively), the rest of the kinsmen of this generation come under classificatory terms.

The most important members of this generation are the siblings of the ego. Here, brothers and sisters, elder or younger, have distinct terms. Accordingly, while elBr is denoted by the terms *Anna* yo Br

is referred to by *Thammudu*. Similarly, while *Akka* is the term for the eSi, *Chellelu* stands for yoSi, *Anna* is for HuelSiHu, but *Thammudu* is for HuyoSiHu.

Deviation is also noted in certain cases. While there is a common term *Bava* for the elder brother of both husband and wife, two separate terms, viz., *Maradi* and *Bavamaridi* are used for HuyoBr and WiyoBr respectively.

First Descending Generation

In the first descending generation a son is referred to by the term *Koduku*, while a daughter by *Kothur*. Again, the term *Koduku* also refers to BrSo (ms), SiSo (ws), WiSiSo and HuBrSo. Further, while the term *Kodalu* is meant for a number of members of the first descending generation like SoWi, WiBrDa, SiDa (ws), BrDa (ws) and HuSiDa, the term *Alludu*, brings together some other relatives of this generation like DaHu, HuSiSo, WiBrSo, BrSo (ws), SiSo (ms).

Second Descending Generation

There are only two terms for all the members of this generation. The term *Manumadu* includes all male relatives of this generation, like DaSo, SoSo, BrDaSo, BrSoSo, SiDaSo and SiSoSo. And the term *Manumaralu* is meant for all fair sex relatives of this generation, like DaDa, SoDa, BrSoDa, BrDaDa and SiSoDa.

Criteria of Distinction

Besides the generational characteristics, the Chenchu kinship terms also show some other distinctive features. The analysis of the Chenchu kinship terms on the basis of various criteria of distinction has been noted below.

Sex

The Chenchu kinship terms show a clear sex-wise distinction. While the term *Jejitata* is used for all the male members of the third ascending generation (e.g., FaFaFa, FaMoFa, MoMoFa and MoFaFa), their spouses in this generation, like FaFaMo, FaMoMo, MoMoMo and MoFaMo, bear a common term—*Jejavva*. Similarly, in the second ascending generation, fathers of both father and mother are referred to as *Tata*, while mothers of both father and mother are *Avva*. In the first ascending generation, as there are denotative terms for both parents, so sex-wise distinction is clear there. The same criterion is true for all other relatives of this generation. While EaelBr. MoelSiHu are *Peddannaina*, their respective spouses are

Peddamma. Similarly, while MoBr, FaSiHu, HuFa and WiFa are *Mama*, their respective consorts are *Atha*.

In the ego's generation also the criterion of sex distinction is marked and is true for all members of this generation. Here, the husband and the wife have two distinct denotative terms, one for each. Therefore, the distinction is clear. In case of other relatives also it is true. While *Anna* is the term for elBr, FaelBrSo, HuelSiHu and MoCiSiSo, the term *Vadina* is used for elBrWi, HuelSi, WielSi and the term *Akka* for FaelBrDa and MoSiDa.

In the first descending generation, this criterion is true for all members. While BrSo (ms), SiSo (ws), WiSiSo and HuBrSo have a common term, *Koduku*, the term for BrDa (ms), SiDa (ws), WiSiDa and HuBrDa is *Kuthuru* and for BrDa (ws) and SiDa (ms) it is *Kodalu*. While the term for son is *Koduku* and that for daughter is *Kuthuru*, their respective consorts are *Kodalu* and *Allulu* respectively. This criterion is identically true for all members of the second descending generation where sex-wise differentiation is well marked.

It is thus seen that all kin terms of the Chenchus are governed by the criterion of sex distinction.

Generation

The criterion of generation distinction has been obeyed by the kinship terms of the Chenchus. Distinct terms are used to distinguish members of different generations. The terms *Tata* and *Avva* are used for members of the first ascending generation, like the grand-fathers and grand-mothers respectively. The same terms added to some other words identified members of the third ascending generation. For example, *Jejitata* includes male members of this generation and *Jejavva* female members. In the first ascending generation, there is a number of terms which include relatives of this generation only. For example, the terms *Ayya* or *Naina*(Fa), *Amma* (mo), *Chinnanaina* or *Chinnayya* (FayoBr, MoyoSiHu), *Paddanaina* (FaelBr, MoelSiHu), *Chinnamma* (MoyoSi, FayoBrWi), *Peddamma* (MoelSi, FaelBrWi), *Mama* (MoBr, FaSiHu, HuFa, WiFa), *Atha* (FaSi, MoBrWi, WiMo and HuMo) are prescribed for the member—relatives of the first ascending generation only.

In the ego's generation also distinct terms are there which do not cover members of any other generation. The terms *Anna* (elBr, FaelBrSo, HuelSiHu, MoelSiSo), *Bavemaridi* (WiyoBr, FayoSiSo,

yoSiHu, MoyoBrSo), *Vadina* (elBrWi, FaelSiDa, MoelBrDa, WielSi, HuelSi) etc. represent members of the ego's generation only.

Kinship terms used in the first descending generation also follow the criterion of generation differentiation. Here, various terms are used to refer to members of this generation only. For example, the terms *Koduku* (So, WiSiSo, HuBrSo and others), *Kothuru* (Da, WiSiDa, HuBrDa and others), *Kodalu* (SoWi, WiBrDa, HuSiDa and others) and *Alludu* (DaHu, HuSiSo, WiBrSo and others) represent members of this generation only.

But this criterion is not obeyed only in case of the second descending generation. In this case, members of the third descending generation are also included. For example, the term *Manumadu* includes DaSo, SoSo, BrSoSo, SiDaSo, SiSoSo, Brdaso, all belonging to the second descending generation. Similarly, the term *Manumaralu* covers DaDa, SoDa, BrSoDa, SiSoDa, BrDaDa and SiDaDa.

Relative Age

The Chenchus give much value to the relative age of their kinsmen. This results in the attachment of importance to the relative age of various kinsmen. Among these people, distinct terms are there to distinguish a senior relative from a junior one. FaelBr is distinguished from FayobR (*Chinnanaina* or *Chinnasya*) by the term *Peddanaina*. Similarly, FaelSiHu is termed as *Peddanaina*, whereas FayosiHu is *Chinnanaina*, MoelSi and FaelBrWi are distinguished from Moyosi and FayobRWi who are referred to as *Chinnanaina*, by the term *Peddamma*. While elBr, FaelBrSo, HuelSiHu and MoelSiSo are referred to as *Anna*, yobR, FayobRSo, HuyosiHu, and MoyosiSo have *Thammudu* as kinship term for them. Here, elSi is *Akka* but younger sister is *Chellelu*; similarly, while elBrWi is *Vadina*, yobRWi is *Maradalu*. MoelBr is *Bava*, but HuyobR is *Maradi*. Likewise, while WielBr is also *Bava*, WiyoBr is *Bavamaridi*.

Thus, we see that the Chenchu kinship terms comply perfectly to the rule of relative age distinction.

Collaterality

The criterion of collaterality is much distinct in the Chenchu kinship terms. Clear distinction can be made between father and his collateral brothers and mother and her collateral sisters. While father is *Ayya* or *Naina*, his elder brother is *Peddanaina* and his younger brother is *Chinnaina*. Similarly, while mother is *Amma*,

her elder sister is *Peddamma* and her younger sister, *Chinnamma*. While ego's elder brother is *Anna*, his younger brother is *Thommulu*. In the same way, while ego's elder sister is *Akka*, there is a distinct term, *Chellelu*, for the ego's younger sister.

Affinity

The Chenchu kinship terms sometimes obey the criterion of affinity distinction, but in certain cases these also disoblige the criterion. If the consanguineal and affinal terms are analysed, some common terms in a few cases, can be obtained. For example, *FaelSi*, *FayoSi* and *MoBrWi* have a common term *Atha*. Likewise, *FaelSiHu*, *FayoSiHu* and *MoBr* are referred to by a common term *Mama*. Again, *FaelBr* and *MoelSiHu* have a common term, *Peddannaina*. Identically, *FayoBr* and *MoyoSiHu* have *Chinnaina* or *Chinnamma* as the kinship term. Further, *MoelSi* and *FaelBrWi* carry a common term, *Peddama*, so also *MoyoSi* and *FayoBrWi* are termed as *Chinnamma*.

The dichotomy is also seen to be absent in the ego's generation. This is clear in the case of *HuyoSi* and *Wiyosi* and also in the case of *HuelSi* and *WielSi*. Each of the pair of relatives has a common term. But the rule is not obeyed in certain cases where dichotomy is noticed in consanguineal as well as affinal terms, viz., *HuyoBr* and *Wiyobr* have different terms, *MoBr* and *FaBr* have also different terms.

Bifurcation

Like the criterion of affinity, the criterion of bifurcation is observed in some cases. It is obeyed when we see that *FaFaFa* and also *FaMoFa* and *MoFaFa* are having a common term *Jejitata*. Similarity of the terms is also found in the cases of *FaFaMo*, *MoMoMo*, *FaMoMo* and *MoFaMo* where a common term, *Jejavva*, is used. Commonness of kinship term is also observed in case of *FaFa MoFa* (*Tata*) and also in case of *FaMo* and *MoMo* (*Avva*).

This criterion is observed in the second descending generation also. Here, *SoSo* and *DaSo* have a common term, *Manumadu*. Likewise, *SoDa* and *DaDa* have *Manumaralu* as common to both.

But violation of this rule is also distinct in certain cases. For example, *FaelBr* is *Peddannaina*, *FayoBr* is *Chinnaina*, but *MoBr* is *Mama*. Identically, *MoelSi* is *Peddamma* and *MoyoSi* is *Chinnamma*, but *FaSi* is *Atha*. In the ego's generation also we find that while

FaelBrSo is *Anna*, MoelBrSo is *Bava*, FayoBrSo is *Thammadu*, but MoyoBrSo is *Bavamaridi*. While FaelSiSo is *Bava* and FayoSiSo is *Bavamaridi*, MoelSiSo is *Anna* and MoyoSiSo is *Thammudu*. Similar deviation is noticed in the case of daughters of both FaBr and MoBr and FaSi and MoSi. Variation is also observed in the first descending generation. Here, BrSo (ms) and SiSo (ms) and BrSo (ws) and SiSo (ws) have different terms. Same difference is also found in case of BrDa (ms) and SiDa (ms) and BrDa (ws) and SiDa (ws) and so on.

Polarity

This criterion is followed in certain Chenchu kinship terms. It is found that the two brothers, elder and younger, are referred to by two distinct terms. Similarly, two sisters are denoted by two distinct terms—*Akka* (elSi) and *Chellelu* (yoSi). Similarly, HuelBr (*Bava*) HuyoBr (*Maradi*) and WielBr (*Bava*) and WiyoBr (*Bavamaridi*) have distinct terms. This is also the term for the sisters of both husband and wife. While *Vadina* is the term for both HuelSi and WielSi, the term *Maradalu* denotes HuyoSi and WiyoSi. Husband of both elSi and yoSo, both of HuelSi and HuyoSi, of WielSi and WiyoSi have different kinship terms. Similarly, wife of both elBr and yoBr and of both HuelBr and HuyoBr and WielBr and WiyoBr are covered by different terms.

Speaker's Sex

The Chenchu kinship terminology recognises the criterion of the speaker's sex in certain cases. In certain other cases, on the other hand, this criterion is ignored. Both male and female speakers use the same kinship term for their elder as well as younger brothers. The same term *Akka* is used by the speakers of both sexes for their elder sister. Similarly, the term *Chellelu* is used by both for their younger sister. This criterion is also obeyed in case of the elder brother's wife where the speaker of both sexes use the term *Vadim*. Likewise, it is also true for yoBrWi (*Maradalu*). In the case of elSiHu (*Bava*) and also of yoSiHu (*Bavamaridi*) this criterion has been observed.

But the criterion has been disobeyed in certain other terms. In the first descending generation, the BrSo is *Koduku* to a male speaker, but *Alludu* by a female speaker. The SiSo, on the other hand, is *Koduku* by a female speaker but *Alludu* by a male speaker.

Identically, while BrDa and SiDa are *Kuthuru* by a male and a female speaker respectively, they are *Kodalu* by a female and a male speaker respectively.

Decadence

The criterion of decadence has not been recognised by the Chenchu kinship terminology.

XVI

The Chenchu Society is characterised by 'Dakota type', a Social Organisation as described by Murdock (1949). Their residence is patrilocal and descent patrilineal. The Social Organisation of the Chenchus based on Haimendorf's (1943) work shows Bi-Dakota features as detailed below which is in accordance with Murdock.

Table 9

Changing Social Organisational Features

Descent	Cousin terms	Residence	Clans	Exogamous	Marriage	Family	Aunt terms	Niece terms
Patri-lineal	Iraqi-ous	Bi-local	Absent	Patrilineal extension of incest taboos	Mono-gamous	Bio-local extend- ed fami- lies	Collateral or merging	Merging

The present social organisation of the Chenchus reveals the following changing situation :

Table 9A

Patri-lineal	Iraqi-ous	Patri-local & Neo-local	Present	Patrilineal extension of incest taboos	Mono-gamous	Neo-local/ Patri-local	Bifurcate merging	Bifurcate merging

Some of these terms are commonly used for consanguinal and affinal relatives, e.g., *Bava*, *Vadida*. We find some difference in the mode of address of some relatives. Younger ones are addressed by their names by the elders. The wife and the husband never utter each other's name. They address each other in the name of their children

like, "the father or mother of so and so". Some Chenchus used to call their younger sisters by using the term *Talli*. A person sometimes addresses his female cross-cousin with the term 'Oh ! Padusu'. For some of the relatives the terms of address and reference are one and the same, e.g., *Vadina*, *Akka*, *Bava*, *Anna*, *Tata*, *Ayya*, *Amma*, *Avva* etc.

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RAMKAMAL SEN* AND THE ASIATIC SOCIETY

SRI PRADYOT KUMAR RAY

Ramkamal Sen (1783-1844) was actively associated for long years with the Asiatic Society of Bengal. But it is open to dispute as to when he joined the said Society. An attempt, therefore, has to be made to ascertain the possible year in which Ramkamal associated himself with the Asiatic Society of Bengal. The subject becomes complicated primarily because Ramkamal's biographer, Peary Chand Mittra, and some other eminent authors have made some observations and comments on this issue which appear to be contradictory. Lokenath Ghose informed us that Ramkamal's "first connection with the Asiatic Society commenced in November, 1806."¹ Peary Chand Mittra stated that "in 1818-19" Ramkamal, while in the Hindoostanee Press, might have "attracted the notice of Dr H. H. Wilson and was appointed a clerk of the Asiatic Society of Bengal on a salary of Rs. 12/- per month."² But these statements cannot be considered tenable if examined in the light of the facts available in the Society's proceedings and in the personal letters of Ramkamal Sen.

In December 1832, Ramkamal wrote to Dr Wilson, the then Secretary to the Asiatic Society of Bengal, that he "entered into the service of the Society as a writer in 1803/4."³ Unfortunately in this letter Ramkamal did not mention exactly the year in which he had joined the Society. The Asiatic Society of Bengal, during this period, was an institution fully dominated by the Europeans. The aristocratic character of the Society was also noticed by Dr William Carey.⁴ It would, therefore, not be improper to conjecture that without suitable introduction no Indian could expect the "honour to be attached to so respectable a body of Gentlemen,"⁵ even as a writer.

Ramkamal was in the service of Namey on the 10th December, 1802.⁶ Namey was an Assistant to W. C. Blacquerie,⁷ the Senior Magistrate of Calcutta.⁸ David Kopf suggested that Ramkamal apparently impressed W. C. Blacquerie who was also a member of the Persian group at the Asiatic Society. "In all likelihood through Blacquerie Sen made his first contacts with the Asiatic Society. ...Sen Probably became acquainted with Hunter and Gilchrist either at the Society or at the College and was invited the next year (1804) to work in the Hindoostanee Press as a compositor."⁹

* Ramcomal Sen was the spelling used by him.

Ramkamal himself wrote that he served the Society "under Dr Gilchrist, Mr Home, Dr Hunter, Dr Leyden"¹⁰ and Dr Wilson. In 1803/4, Gilchrist was not the Secretary to the Society though he was found to be an active member in 1803¹¹ and he left India at the end of 1804.¹² Home was the Secretary to the Society in 1803.¹³ In January, 1804, Dr Hunter was found to be the Acting Secretary to the Asiatic Society.¹⁴ In April, 1804, Dr Hunter was unanimously elected Secretary to the Society in place of Home.¹⁵

Lokenath Ghose wrote that in July, 1804, Ramkamal entered the service of Dr Hunter in the Hindoostanee Press and in the same month he was placed in charge of the establishment.¹⁶

If it is assumed that Ramkamal first joined the Press in July, 1804 and then with the assistance of Dr Hunter came to work in the Asiatic Society of Bengal in the second half of that year, in that case Ramkamal could have no opportunity to work under Home, who was the Secretary to the Society technically upto the 4th of April, 1804, and the question of his working under Gilchrist could not arise at all. Naturally, the assumption of David Kopf seems to be quite reasonable and we are inclined to hold that Ramkamal possibly joined the Society some time in 1803 when Gilchrist was quite active in the Asiatic Society¹⁷ and Home was the Secretary to it. It may, therefore, be concluded that Ramkamal had joined the Asiatic Society prior to his appointment in the Hindoostanee Press.

As to the position to which Ramkamal was first appointed in the Society there is a lot of confusion. Ronaldshay stated that Ramkamal Sen was "a truly remarkable man, who by sheer force of character and ability had raised himself from the humble position of an assistant type-setter on Rs. 8/- a month in the employment of the Asiatic Society of Bengal, to that of a member of the Council of the Society..."¹⁸ The Asiatic Society of Bengal had no printing establishment of its own and therefore, Ramkamal could not be appointed an "assistant type-setter" in the press of the Society.

Since 1804, Ramkamal had been serving both the Hindoostanee Press and the Asiatic Society. In the Press he was a compositor and, in the Society, a writer. As a compositor in the Press his salary was Rs. 8/- a month in 1804.¹⁹ The close relationship of the Asiatic Society of Bengal with the Hindoostanee Press, particularly during the time of Dr. Hunter²⁰ and Ramkamal's connections with these two institutions, at the same time, had possibly given rise to confusions over the nature of work done by him in the Society and

the amount of money he drew from the Society as his monthly salary.

Ramkamal's acquaintance with Dr Wilson commenced in 1810. Ramkamal was then in the service of Dr Hunter. He was, in fact, the "managing man" of the printing establishment of which Dr Hunter was the principal proprietor. In that year Dr Wilson and Dr Leyden "joined Dr Hunter in the property" and when Dr Hunter and Dr Leyden went to Java in 1811, they left the press under the charge of Dr Wilson. Dr Wilson, "was a young man too little acquainted with the business of printing and the real conductor and superintendent was Ramcomul". Dr Hunter and Dr Leyden both expired in Java in 1811 and the Press came almost entirely into Wilson's hands. He was joined by Capt. Roebuck. Ramkamal continued as before to conduct all the business details until 1828, when the establishment was transferred to other proprietors.²¹

In 1809, Farquhar proposed Dr Wilson to be a member of the Asiatic Society of Bengal.²² He was elected a member of the Society in February, 1810.²³ In April, 1811, Dr Hunter's letter "resigning the office of the secretary to the Society" was considered and "Dr Leyden was elected Secretary and Mr. Wilson, Deputy Secretary by ballot."²⁴

In December of the same year "the Society proceeded to ballot for a new Secretary in the room of late Dr Leyden"²⁵ when Mr Wilson was duly elected."²⁶ In June, 1815, Dr Wilson sent a communication to Harington, the Vice-President, resigning the situation of Secretary to the Society. He wrote that the very limited leisure he possessed, rendered it difficult for him to pay that attention to the duties of Secretary which he would wish to bestow upon them. He therefore wanted to withdraw from the situation.²⁷ Major Weston was elected Secretary in August, 1815.²⁸ In June, 1816, Dr Wilson was again elected Secretary on the departure of Major Weston.²⁹ In November, 1819, Dr Wilson proceeded to the Upper Provinces on duty and Capt. Lockett was requested to officiate as Secretary during his absence.³⁰

Ramkamal entered into the service of the Asiatic Society as a writer but subsequently he acted as "Registrar and Accountant, Assistant Superintendent of the Museum and Establishment..."³¹ In the prospectus of a Dictionary, Ramkamal Sen had been designated as the Deputy Librarian of the Asiatic Society. The prospectus appeared in the Second Report of the Calcutta School Book Society

for 1818-19. It was read on the 21st day of September, 1819.⁸² It could, therefore, be safely said that at least in September, 1819, Ramkamal was holding a responsible position in the library of the Asiatic Society of Bengal.

Ramkamal in Calcutta and Dr Wilson in Benares were in touch with each other through correspondence. Ramkamal in a letter in February, 1820, stated to Dr Wilson that some appointments had been made in the Asiatic Society but "there was nobody in charge of collections." Ramkamal lamented over the death of Capt. Roebuck whose loss he "felt very severe." Capt. Roebuck always paid him great attention and treated him often, above himself. He showed an eagerness to do Ramkamal good and offered his assistance if he would ask for any. Ramkamal considered him "most worthy and valuable friend and patron." "He stated that he had enjoyed Wilson's goodness, uniform attention and indulgence during the last ten years. He was "confident" that Dr Wilson would not forget him when there was an opportunity of doing him good, especially when he had the misfortune to lose almost all his intimate friends, and his dependence was solely confined to this generous patron."⁸³

At a meeting of the Society in June, 1820, presided over by Marquis of Hastings, it was resolved that, "Ramkamal Sen be appointed Collector of the Society and that he be instructed to collect the subscription." It was further resolved that "his salary be raised to Sicca Rs 50/- for the present and to increase with the collections."⁸⁴ Capt. Lockett was then the officiating Secretary to the Society. Ramkamal got his promotion within four months after he had earnestly solicited Wilson's protection and help. So it may not be far from truth to say that Wilson had something to do with this promotion, though he was then at Benares.

The first report of Ramkamal as the Collector was placed at the meeting of September, 1820. It was reported that the collections made from 18 June to 15 September, 1820 amounted to Sicca Rupees 2340 of which Rupees 2000 had been paid into the treasury of Messrs Palmer & Co.⁸⁵ Returning from Benares, Dr Wilson resumed his duties as Secretary to the Asiatic Society in the meeting held on 13th April, 1821. In that very meeting in consideration of the additional duty and responsibility that devolved upon Ramkamal Sen as Collector, the Society decided to fix his salary at "70 Rupees a month",⁸⁶ of which he received Rs 50/- as salary and Rs 20/- for the establishment, he was required to keep.⁸⁷

In July, 1821, a report from the Collector was submitted to the meeting. In that report Ramkamal drew the attention of the members to the perilous pecuniary condition of the Asiatic Society and stated that out of a total collection of Rs 8150-6-6, the sum of Rs 2706/- was recovered from old debts or arrears due.³⁸ The measures taken for the recovery of arrears due to the Society were also reported. A circular under the signature of the Secretary was addressed to those members who were in arrears. In the circular it had been stated that the Society sustained much loss and much inconvenience had occurred to the members themselves, by an irregularity in the collection of the subscriptions, in consequence of which it appeared that several members had "fallen into huge arrears." The members in arrears were requested to clear off their dues and it was stated that in future the demand would be regularly made. But in most cases no reply whatever had been received from the defaulting members. In one or two, explanations had been offered for the causes which had led to the accumulated arrears. Some members desired to continue as members of the Society provided the demand for arrears was withdrawn. In some cases demand had been paid in full and in one, in part.³⁹ It remained for the Society to determine what measures would be adopted in respect of those members who still continued to be in arrears. The Society resolved that the demand for the accumulated arrears be withdrawn, and that such members as were in arrears be considered still attached to the Society provided they consented to pay the subscription due for the last two quarters. It was also resolved that long-standing irrecoverable bills be struck out of the Society's Accounts.⁴⁰ Statements of collections were submitted before the meetings of the Society from time to time and the collections were made regularly as far as possible.⁴¹ So through the strenuous efforts of Ramkamal, the collections of the Society were regularised to a great extent.

In 1828, the question of the printing of the 17th Volume of the Researches arose. The accounts of the Treasurers and the Collector were submitted. It appeared that the Society's balance in hand was Rupees 2501. This did not cover the expense of printing of the 16th Volume and it became necessary to provide extra means for the expenditure to be incurred in printing the 17th Volume within the period in which it might be expected to be published. The Society decided that the materials collected for the 17th Volume should be committed to the press without delay. For the purpose of defraying

the cost of its publication, a subscription was opened amongst the members of the Society.⁴²

On January 7, 1829 it was for the first time in the history of the Society that its Secretary proposed names of some important Indians for membership. The proposal was seconded by Dr. Grant. The names proposed were those of Prasanna Kumar Thakur, Dwarakanath Thakur, Shibachandra Das, Rasamaya Dutta and Ramkamal Sen.⁴³ In March of the same year they all were elected members of the Society. At this meeting the name of Maharaja Baidyanath Ray was proposed for membership of the Society by Ross, and it was seconded by Dr Wilson.⁴⁴

The meeting of the 6th May, 1829, is significant in the history of the Asiatic Society and also in the career of Ramkamal Sen. The first Indian who attended the meeting on this date, as a full member of the Society, was Ramkamal Sen. No other Indian elected in March last attended this meeting. Maharaja Baidyanath was elected a member unanimously.⁴⁵ Ramkamal Sen proposed the name of Kashinath Mullick for membership. Dr Wilson seconded the proposal.⁴⁶

In July, 1829, four Indian members came to attend the meeting. They were Prasanna Kumar Thakur, Ramkamal Sen, Rasamaya Dutt and Shibachandra Das.⁴⁷ Shibachandra Das proposed the names of five gentlemen of the Indian community for membership. Ramkamal Sen seconded the proposal. These gentlemen were : Maharaja Bunwari Govind Rai, Asutosh De, Radha Madhab Banerji, Raj Chandra Das and Hara Chandra Lahiri. Prasanna Kumar Thakur proposed the name of Shamlal Thakur. Wilson seconded the proposal.⁴⁸ It would be evident from the proceedings of the meeting of this date that Indians of different shades of opinion began to take interest in the Asiatic Society.

Calder informed the Society that His Majesty the King of Oudh had been pleased to bestow on the Society a donation of Rs. 20,000/- to be laid out in promoting researches in the literature and natural history of this country. Another donation of Rs 5,000/- had at the same time been presented to the Society for similar purposes by His Majesty's Minister Yatim Adood Dowla. The full amount of both these donations had been remitted by Ricketts, Resident at Lucknow, who had most handsomely made up a considerable loss by the exchange which would otherwise have fallen on the Society. He further reported that the Society owed these donations to the

liberality of the late Vakeel Ashik Allay Khan, who from a desire to gain for his master the honourable reputation of bestowing his wealth on laudable and useful objects was induced to recommend the Asiatic Society and more especially its Physical Branch to the patronage of His Majesty.⁴⁹ The amount of these donations had been deposited at interest with Mackintosh & Co.⁵⁰ The Society sent copies of Researches to the King of Oudh.⁵¹

The year 1829 was important in the annals of the Asiatic Society of Bengal in the sense that it was in this year that a few respectable Indians were taken in as full members of the Society for the first time and an Indian Prince, i.e. the King of Oudh donated handsomely towards the fund of the Society to carry out its laudable objects. Theoretically, therefore, the Society became an Anglo-Indian organisation.

By 1830 Ramkamal had earned considerable eminence in the Asiatic Society. James Mackillop addressed a letter to Ramkamal Sen from London on the legacy under the Will of late Dr. Bruce to the Asiatic Society. The matter was taken up for consideration and the Society decided to adopt appropriate legal measures to obtain payment of the legacy. Mackintosh & Co., sent a power of attorney to their correspondents in England authorising them to apply for the amount of legacy bequeathed by late Dr Bruce.⁵²

It was reported in 1832 that the amount of the late Dr Bruce's legacy had been received and invested in Government securities.⁵³ Payments from Lucknow and London were substantial and they helped the Society to maintain its activities at least for some time, even in the face of the commercial crisis of 1832. In September, 1832, Collector Ramkamal's report showed "a balance of outstanding bills of (Rs) 11,140 of which (Rs) 3856" might be realised.⁵⁴

The Society passed an important resolution in March, 1831, which had an adverse effect on its finance. It resolved that it would "be optional with members" who had "subscribed for 20 years and upward to continue their pecuniary contributions."⁵⁵

In December, 1832, the committee of papers⁵⁶ of the Asiatic Society reported the receipt of a letter from Ramkamal Sen addressed to Dr H. H. Wilson, the Secretary to the Society. In the letter Ramkamal offered some observations regarding the duties of the office of the Secretary to which he had been attached for a period of 29 years.⁵⁷

Ramkamal observed that the recent rule practically exempting

20 years' members from paying any subscription had put the finance of the Society at a low key. It was necessary to reduce the expense of the Society. He proposed that his nominal salary might be abolished. He offered his services to the Society without any salary and would have no objection to continue to be in charge of collections and accounts. He would superintend the establishment of the Society with the aid and advice of the Society's Secretary. He wanted to be allowed "a small establishment just sufficient to keep an account of the collection and bring cash for the bills to be sent out".⁵⁸ Measures suggested by him would effect a monthly saving of Rs 73/-.⁵⁹

The Society accepted the proposals of Ramkamal and thanked him for his long and valuable services and his disinterested offer of continuing their gratuitous performance. It resolved that, "he be elected Native Secretary to the Asiatic Society". He was also authorised to retain such establishment as was "necessary for the collection of the subscriptions in communication with the European Secretary".⁶⁰ At this meeting, Ramkamal proposed the name of Radhakanta Deb for membership of the Society. Dr Wilson seconded the proposal.⁶¹

On December 19, 1832, a special meeting was convened to "consider on the most appropriate mode of expressing" the Society's sentiments upon the approaching departure of its Secretary, Dr H. H. Wilson. Ramkamal Sen was the only Indian member present at the meeting.⁶²

Ramkamal was elected a member of the committee of papers of the Society in January, 1833. Radhakanta Deb of Dharma Sabha fame was elected a member of the Society.⁶³ Colebrooke retired from the office of the Agent to the Society in England and Dr Wilson was requested to fill that situation. Ramkamal sen was the man who took the initiative to arrive at such a decision.⁶⁴

In spite of the efforts of Ramkamal and a section of the members the Society could not overcome the financial crisis. The financial depression of 1832 made the financial position of the Society desperate. From the statement of accounts submitted by Ramkamal at the meeting dated the 9th January, 1833, it would appear that the Society had lost, by the failure of Mackintosh & Co., its Treasurers, a sum of Rs 11, 397-12-6. The Society had 80 subscribing members but "1/5 or 16 subscribers considered as not paying." There were demands on the Society's fund to the amount of

Rs 5559-13-1. The statement prepared by Ramkamal was referred to the committee of papers to "determine as to the best mode of liquidating the demands in question."⁶⁵ The committee of papers had to dispose of two notes to secure Rs 5,500/- for the liquidation of the debts standing against the Society.⁶⁶

In the background of this unsatisfactory financial condition of the Society, Secretary James Prinsep announced at the meeting dated the 27th March, 1833 that materials were collected for another volume of Researches and that it was left to the Society to determine whether it would continue to publish the Researches in the same form as done heretofore.⁶⁷ Ramkamal sen, "the Native Secretary to the Society", also placed a memorandum on the subject.⁶⁸ The substance of the memorandum would be of some importance for it revealed the history of publication of the Asiatic Researches, defects in printing, lack of efficient management of sale and the sum spent on printing the publications.

Ramkamal clearly showed year by year from 1799 to 1833 including the first part of the physical class published in 1829 that the expenditure incurred on this account by the Society was Rs 81,670/- and the amount realised was only Rs 9,200/-. The Society had to bear a deficit of Rs 72,800/- for undertaking the publication of the Asiatic Researches.⁶⁹ Major points in the memorandum were as follows :

1. The Asiatic Researches Vols, 1st to 5th, were printed by the proprietors of the Calcutta Gazette Press on their own account, and the Society paid for the copies of each number used or taken by it at Rupees 20 per copy.⁷⁰

2. From the 6th Volume the Society undertook the publication at its own expense and responsibility.⁷¹

3. The printing of the Transactions had exhausted the Society's fund, and the returns made by the sale of copies would be nominal if the charges for transportation and advertisements etc., were taken into account.⁷²

4. The sale of the books both in England and in India had not been properly managed.⁷³

5. The number of copies printed was too many. 120 copies were enough to meet the requirements of the subscribing members and the learned bodies in Europe and India.⁷⁴

6. The style of printing, the type, the paper and the awkward

size of the volumes, as well as the high price of the work had been prejudicial to its sale in England and India.⁷⁵

7. Copies of the Transactions furnished to the members were charged till 1810, after which every subscribing member had been supplied with a copy gratis, and from that time, the price had been reduced from Rs 20/- to Rs 10/-, the cost price. Naturally it made the sale nominal.⁷⁶

8. There was sufficient matter for the 18th Volume proposed to commence, but the Society had no fund to defray the expense of printing without selling the Government securities deposited in the Treasury.⁷⁷

9. If the manuscripts of the Researches were clean and the papers were interesting it was supposed that some of the London Printers might undertake the publication, to whom the unsold volumes might be made over.⁷⁸

10. The publisher might print the work on his own account and the Society was to purchase a certain number of copies it required at the cost price, just as the Bombay Literary and other European Societies were managing their Transactions.⁷⁹

11. There were great many copies of the Researches at the Society's shelves eaten up by insects, and by a resolution a considerable number had been given away gratis, while others were destroyed.⁸⁰

12. 100 copies of each number had been transmitted to England free of cost. 25 for presents to the different societies in Europe and 75 for sale at one guinea each.⁸¹

After some discussion a committee composed of Dr J. Tytler, Major Benson, Dr J. T. Pearson and J. R. Colvin was appointed to consider the best mode of publishing "the continuation of the Researches".⁸² In June, 1833. the report of the committee was placed before the meeting. The special committee wrongly interpreted the spirit of Ramkamal's memorandum and thought that Ramkamal had urged it to stop the publication of the Researches. The committee could not "on the fullest consideration" of the memorandum of Ramkamal Sen give its assent to it. It also could not agree with Ramkamal in recommending that the volume, if printed at all, should be printed in England. "The pride of a national and independent existence" stood in this way of taking such a course. The moment the printing of the Researches was transferred to England the Society would "commit an act of

felo de se".⁸³ But the special committee appreciated other economic measures suggested by Ramkamal Sen.⁸⁴ The committee opined that "every measure of economy" was called for under the prevailing circumstances. The committee strongly recommended that the octavo form might be substituted for quarto volume. The question of "a composition for the quarterly subscriptions" was taken up on the suggestion of a member. The committee recommended that Rs. 500/- or 32 Gold Mohurs which would be seven years' subscription including the admission fee, might be adopted as the amount of composition for new members, with a proportionate scale of rates for those who were already members, should they desire to compound for their future subscriptions. This it did following the principle of the Royal Asiatic Society where the amount of composition was fixed at 50 guineas or ten years subscription.⁸⁵

The Society generally accepted the recommendations of the committee. The Society also approved generally of the suggestion for optional composition of the quarterly subscription. Dr Tytler, Ramkamal Sen and the Secretary were requested to draw up a table of the scale of payment founded on the value of life and period of residence in India as shown by the Society's subscription list.⁸⁶ The bills for the 2nd part of the 18th Volume of the Asiatic Researches or Transactions of the physical class were discharged from the fund invested in Government Securities.⁸⁷

In January, 1834, James Prinsep submitted the Annual Report. In the Report, the receipts and disbursements were exhibited. The printing of the last two Volumes necessitated "an encroachment on the stock of the Society to the extent of 7500 Rupees."⁸⁸ With regard to the collection of the quarterly contributions, the late unfortunate failures had caused much inconvenience both to the collector and to absent members, and to this cause might be, "attributed the apparently large amount on the defaulters' list." "The contribution of eighty members (without entrance fees) would be Rs 5,120/-, whereas only Rs 3900/- were collected," and in this sum was included 302 Rupees, from the Governor General, the patron of the Society, who contrary to former precedents had liberally directed that he should be charged as an ordinary paying member.⁸⁹

In January, 1835, the Secretary reported that the "outstanding quarterly bills due, but not yet collected, was Rs 2817/-. The publications of last year had been limited to the Index to the 18

volumes of quarto Researches, now nearly completed and the monthly journal."⁹⁰ Thus the Asiatic Society was landed into a deep financial crisis for not paying any heed to the judicious advice given by Ramkamal Sen. Ramkamal had tried his best but in vain, to further the objectives of the Society without dragging the Society on to the verge of a financial collapse.

The meeting of the Society held in May, 1835, was a momentous one. The Secretary called the attention of the Society to the late important resolution of the Government, suspending the printing of all the oriental works hitherto in the course of publication under the auspices of the General Committee of Public Instruction. He moved a resolution to the effect that a committee be formed in the Asiatic Society to be called Oriental Publication Committee. The principal object of this committee was the completion of the publication of those oriental works which had been hitherto printed under the auspices of the Committee of Public Instruction, but which by a late resolution of the Government, had been suspended, in order that the funds devoted thereto, might be wholly appropriated for purposes of education by means of the English language. The Society should present an humble but urgent memorial to the Government of India, or if necessary to the Court of Directors, setting forth the great national importance of continuing the publication of the series of oriental classical literature it had commenced.⁹¹ It was resolved "that Mr Macnaghten and Dr Mill should be requested in conjunction with the secretaries Mr James Prinsep and Ramkamal Sen to draw up an urgent memorial to the Government avoiding, to the utmost, all controversial points and to submit it for approval at the next meeting." This was unanimously agreed to.⁹²

At the next meeting the draft of a memorial to the Government regarding oriental publications prepared by the special committee of which Ramkamal was an important member had been read by the President, Sir Edward Ryan.⁹³ With some amendments the draft was finally approved.⁹⁴ It was addressed to C. T. Metcalfe, Governor General of India in Council. The memorial contained as many as 15 paragraphs. In paragraph 11, it was stated, if the Sanskrit and Arabic languages were to receive no support from a Government which drew an annual revenue of twenty millions from the people by whom these languages were held sacred, it was the decided opinion of the Asiatic Society that the cause of civilization

and character of the British nation would alike sustain irreparable injury.⁹⁵ The Society, therefore, requested the Governor General in Council, if on fuller consideration, any reasonable doubt should be entertained by the supreme Government about the right of the classical Indian literature to a fair proportion of the sum appropriated by parliament "for the revival and improvement of literature, and for the encouragement of the learned natives of India", he would then be pleased either himself to grant or if necessary, to solicit from the Court of Directors, some specific pecuniary aid to be annually expended on these objects. The Society would be happy to undertake the duty of superintending the expenditure of this sum under such checks as the Government might impose.⁹⁶ But whatever might be the determination of the Government on this point, the Society entreated the Governor General in Council, that he would afford it the assistance of the learned Indians hitherto employed in these literary undertakings, together with such pecuniary aid as might be necessary to complete the printing of the oriental works, which had been interrupted by the resolution of the Government directing the funds hitherto expended upon them to purposes of English education.⁹⁷

On July 1, 1835, the reply of the Government was discussed with regard to the specific requests and recommendations contained in the address. Busby, Secretary to the Government, categorically stated that the Government had no intention of soliciting from the Court of Directors any specific pecuniary aid to be appropriated exclusively to the support of Indian literature, beyond the sum already devoted to that object in conjunction with the encouragement of English literature.⁹⁸ In the 5th paragraph of his letter it was said that the Government also would not furnish any pecuniary aid to the Society for the further printing of those works discontinued by the Government but would gladly make over the parts already printed, either to the Asiatic Society or to any Society or individuals, who might be disposed to complete the publication at their own expense.⁹⁹ Thus the Government refused to budge an inch from the policy formulated on the 7th March, 1835.

The Society gladly accepted the offer of the Government to transfer the printed portion of the several oriental works then in progress to the Asiatic Society and the Society entertained a reasonable hope of being able to complete the whole of them without involving any material charge on its funds, but the Society requested

the Government to withdraw the exception alluded to in the Secretary's letter and to make over the whole of the publications lately in progress at the education press.¹⁰⁰ The President was requested to address the Governor General in Council on the subject. The Society decided to prepare and submit a memorial to the Court of Directors and Board of Control stating that the Government here had withdrawn the funds hitherto appropriated to the revival of oriental literature in this country and impressing upon the authorities in England, the importance of having some public funds appropriated to this purpose and requesting them to adopt such means as they might think fit for providing a sufficient sum for this important object.¹⁰¹

Busby informed the President of the Society in reply to the request of the Society that the whole of the oriental works, the publication of which at the expense of the fund for education had lately been discontinued by orders of the Government and those that had been reserved by the Government for completion, might be made over to the Asiatic Society with a view to their completion at the expense and under the superintendence of the Society. The Governor General in Council acceded to the wishes of the Society.¹⁰² The Society requested the committee of papers to take necessary steps for the reception of the works and also adopt means for the immediate continuation of the printing of the books in the press.¹⁰³ The Society submitted a memorial to the Court of Directors of the East India Company for financial help.¹⁰⁴

Even though the Government was bent upon stopping the publication of oriental literature, Ramkamal did not lose his interest in classical works of India. With regard to the Calcutta publications of the oriental literature, Ramkamal informed Dr Wilson in November, 1835, that he would send him a copy of each such book as he would think Dr Wilson's library should possess. He also stated that "Trevelyan's Roman System¹⁰⁵ and Macaulay's proceedings" had "given such a shock to Indian literature" that he was "afraid the Asiatic letters" would "not revive again."¹⁰⁶

In March, 1836, it was reported to the meeting that for the custody of the oriental books and Mss transferred by the Government to the Asiatic Society, the Government had agreed to pay Rs 78 per month.¹⁰⁷ The Secretary announced in April the transfer and deposit in the Society's rooms of the Sanskrit, Persian, Arabic and Hindi Manuscripts from the College of Fort William.

The number of the Sanskrit works was 1130 volumes, of the Arabic and Persian 2676 volumes.¹⁰⁸

In June, Ramkamal wrote to Dr Wilson that the number of new books he sent from Calcutta was very small. There was no publication undertaken by any European, and Indians could not afford printing at their own expense. There was no encouragement and Trevelyan's plan had "made such a havock in the Literary Department of Government and also in the country that those already printed" had become unsalable, nobody asked "about oriental books."¹⁰⁹

During the absence of Ramkamal Sen, on a visit to the Upper Provinces, Herambanath Thakur was appointed to officiate as Collector to the Society in December, 1835.¹¹⁰

Ramkamal came to attend the meeting on the 7th June, 1837, after returning from the Upper Provinces.¹¹¹ The Secretary to the Royal Asiatic Society of London informed the Asiatic Society of Bengal that the cause of oriental publication "was supported by the united influence and exertions of the Royal Asiatic Society, the Oriental Translation Committee and the result was confidently understood to be, that the Bengal Government was to be instructed, at least, to defray all the expense attending the publishing of the works which it had commenced to print but which it had transferred to your Society to complete."¹¹² The Secretary observed that the letter from the Royal Asiatic Society was the first official notice he had received from London of the fate of the memorial regarding oriental publications sent to London through the Government and in duplicate through the Royal Asiatic Society in 1835.¹¹³

Ramkamal was a member of the committee of papers of the Asiatic Society from 1833 to 1837.¹¹⁴ Visibly it appears from a study of the proceedings of the Asiatic Society that the orientalists had been losing their grip on the Society.

A letter from Ramkamal Sen resigning the office of the "Collector and Treasurer of the Society" was placed at the meeting on the 10th October, 1838. In this letter Ramkamal stated that his health was not permitting him to give that attention and time to the duty which it required. He also stated that he had transferred the fund deposited in the Bank of Bengal to James Prinsep, who could draw money when he required without his interference and he had a quantity of outstanding bills and the books of accounts which he would make over to any person nominated as Collector of the

Society. The Society expressed its thanks "for his services as Collector and Treasurer" and the Secretary was requested to submit an arrangement for the office at the next meeting.¹¹⁵

James Prinsep decided to leave India for a period of "two or perhaps three years" for his sickness. His letter of resignation was placed at the meeting dated the 14th November, 1838. The Society decided to communicate to James Prinsep that he would not consider himself as having vacated the situation of Secretary to the Society and to express the hope that on his return to India he would resume the situation of the Secretary.¹¹⁶ It became therefore necessary that during the absence of the Secretary a temporary arrangement would have to be made for conducting the Secretary's duties to cease upon his return and resumption of the office. The Society resolved : "during the temporary absence of Mr. James Prinsep, the Revd. Mr. Malan, Dr. O' Shaughnessy and Baboo Ramcomul Sen be requested to act as Joint Secretaries of the Asiatic Society."¹¹⁷ For the purpose of carrying on the financial affairs of the Society, a committee was appointed consisting of the President, Ramkamal Sen, Revd Malan, Dr O' Shaughnessy, Secretaries and W. P. Grant.¹¹⁸ Herambanath Thakur applied for an increase of his salary. The committee of finance granted an increase of Rs 20/- per mensem to him.¹¹⁹

The annual report of the Society could not be read in consequence of the "lateness of the hour,"¹²⁰ though Ramkamal Sen submitted the account current for the past year, in which a balance of Rupees 7755-1-2 stood in favour of the Society on the 31st December, 1838. He proposed that a sum of Rs 4,500/- be invested in Company's 5% loan acknowledgment which was seconded by Hare and unanimously agreed.¹²¹ A committee was formed to examine a project of electro hydraulic telegraph for effecting correspondence between Calcutta, London and the rest of the world. Ramkamal was a member of this committee.

The available records of the proceedings of the Asiatic Society show that Ramkamal attended the meeting of the Society last on the 3rd July, 1839.¹²²

Even then, Ramkamal did not lose his anxiety for the welfare of the Society and oriental literature. His mental association with the Society remained in tact till the last day of his life. His letters to Dr Wilson reflect his attitude towards the Society and orientalism in general. In February, 1840, Ramkamal wrote to Dr Wilson about Revd Street of the Bishop's College—a new-comer to this

country who had the intimacy and acquaintance with Dr Wilson in England. When Street called on him it appeared to Ramkamal that he had not yet properly settled. Ramkamal would return him a visit and see in what way he could be of any service to him. He would "consider him an acquisition to the country" if Street turned but to be "an oriental scholar" and took "an interest in the Asiatick letters". Ramkamal "expected much good from Mr Malan". Unfortunately, "he could not remain in the country". He, therefore, expressed the hope that Street would supply Malan's place in time in the Asiatic Society. But he had some doubts. The Bishop's College was, in his opinion, an awkward place in many respects. The rules and duties did not, as far as he knew, allow the new-comers to go on in the way they wished and hence the cultivation of "oriental literature" was "retarded".¹²³

In this connection Ramkamal expressed his opinion about the "*Padrees*" generally. The *Padrees*, wrote he, were an "important class of people" and they were "very desirable" too. Indians "should communicate" and should "have intercourse with them but often their arrival and mixing with their brothers and with Calcutta Society" soon changed them and Indians and *Padrees* became "tired of each other", at least they could not feel that pleasure which they had anticipated before they came to be acquainted. Gradually they became "indifferent or rather cold" when they had the occasion to meet. Ramkamal wrote, "I would wish we should be friendly, sincere and civil in private life as men ought to be, but in public duty or profession let them be polite as friends".¹²⁴

He further stated that he would "see to what Mr. Street" turned out and then write to Dr Wilson though he had "great faith" in his "estimate of the merit of persons" who had the happiness of his "intimacy and acquaintance".¹²⁵

Ramkamal's love of oriental literature was intense. A scholar, whoever he might be, would get his assistance if he would work on the oriental literature. Though generally he had reservations about the Christian missionaries or *Padrees*, yet he would help them and praise them if their exertions proved beneficial to Asiatic letters.

In April, 1840, he informed Dr Wilson that the oriental publication was stopped. He differed "in opinion regarding this and the arrangement made in the Asiatic Society and in consequence", he had, "ceased to interfere in its matter". He, however, was "still a member or subscriber to the Society".¹²⁶

The Paris Asiatic Society, wrote Ramkamal, had sent him a Diploma electing him an Honorary Member. He had returned a suitable acknowledgement but he found some difficulty in sending letters or any present to Paris. Ramkamal wanted to know whether the Paris Society had any agent in London.¹²⁷

Regarding Revd Street of the Bishop's College he wrote, that Street was much engaged with the duties of his Institution. His colleague was laid up with a broken leg on account of a fall from his horse. Street was not able to visit the town. Ramkamal called on him when Street complained of the climate, which seemed to have some effect upon him. He said, he felt disposed to sleep and could not work so regularly as he used to do in Europe. His view as far as Ramkamal had been able to judge, was liberal and if he had time and health he would do well. In this letter he further stated that he was sorry to "hear the account of James Prinsep. His post in the Asiatic Society is still kept vacant".¹²⁸ In July, 1840, the President of the Society reported to the meeting that James Prinsep had died in England.¹²⁹ In August, Ramkamal wrote that Prinsep's death news had arrived. The Society would, he hoped, "do something to perpetuate the memory of the lamented Secretary".¹³⁰ H. Torrens was made the officiating Secretary to the Society in May, 1840.¹³¹ Ramkamal had no direct contact with the Society during this period. About Torrens, he wrote that the gentleman was "an aristocrat".¹³² About the testimonies to be recorded for James Prinsep's memory, Ramkamal informed Dr Wilson, that a bust in the Society's room be placed and a *ghaut* on the bank of the Ganges be constructed. For the former a sufficient subscription had been raised from among the members of the Society and the public had "contributed about (Rs) 15000/- toward the latter".¹³³ The Institution was, it appeared to Ramkamal, "falling".¹³⁴ In January, 1941, he wrote that Revd Street was doing well in the Bishop's College.¹³⁵ In October, he lamented that hardly anything was being done for "Sanskrit literature". The handsome allowance of Rs 500/- a month procured for the Asiatic Society had been misapplied and not a syllable was composed or printed. The Court of Directors should demand an account and see what encouragement or aid had been given towards the legitimate object. He further wrote that "Mr Torrens Bahadoor or *Parsee Khan*", as he was called was full Secretary.¹³⁶ In 1842, he stated that he did not know what was going on in the Asiatic Society and when communication on any subject was received from Dr

Wilson, if it was published with the proceedings of the Society in the newspaper, he might read it. He promised that "on a future occasion" he would give Dr Wilson his "reasons for ceasing" his "attachment to it". He remarked that he did "not go near it".¹³⁷ Unfortunately he did not communicate his reasons to Dr Wilson.

In June, 1843, Ramkamal wrote that the "Paris Asiatic Society" had appointed him its Literary Agent to act with the Deputy Secretary of the Calcutta Asiatic Society, H. Piddington but what it required him to do, was not very clear to him.¹³⁸ He wrote last about the Asiatic Society in January, 1844. He believed that a change was "about to take place on Mr Torrens leaving Calcutta and quitting the principal Secretaryship".¹³⁹

Though Ramkamal did not express his reasons for ceasing connection with the Society yet an idea could be formed about the state of affairs of oriental literature from some comments made by Piddington, Acting Secretary to the Asiatic Society in February, 1843, to Dr Wilson. Piddington wrote that their common friend Ramkamal had shown him the remark of Dr Wilson that "the Journal was losing its oriental character". According to Piddington, this comment of Dr Wilson was "most true" and would be "equally applicable to the Transactions". Piddington then adduced the reasons for which such a situation had developed. They had "no oriental students or scholars and consequently no communications of that kind to the Society" as would be seen by its proceedings "and the cause of it" appeared to Piddington "simple". There was "no leisure nowadays for such pursuits".

Since the departure of Dr Wilson, "every member of the different services" had on an average "30 per cent more work to do, 30 per cent less assistance to do it with and 50 per cent less of income and future prospects to get his mind at ease in that respect". In addition to this there was "the abolition of the College"¹⁴⁰ which with all its faults, produced some noble fruits and kept alive the knowledge of the use and importance of oriental literature to our Government" which had "almost died out now". As the old generation of "College men" died off and the younger public servants were worked far beyond their powers, there was less and less attention paid to literary pursuits—always requiring so much leisure. Men of talent had scarcely time for needful recreation. The abolition of the College seemed to him a "deadly error" which would be felt "day by day and more and more".¹⁴¹

Ramkamal died on the 3rd August, 1844. On the 7th August at the meeting of the Society the Secretary announced with deep regret to the Society, the death of an old and highly talented associate, and formerly a valuable servant of the Society. Dewan Ramkamal Sen, "a gentleman not less distinguished for his great attainments, his enlightened views, his steady attachment to the cause of education, and his untiring energy and industry in every good and useful work, by which the community, Indian or European, could be benefited, than by his modest, and even retiring character, and extensive charity."

The President proposed, and it was agreed that a letter of condolence expressing the deep regret of the Society should be addressed to his family.¹⁴² Accordingly a letter was addressed to Harimohan Sen, the eldest son of Ramkamal by Torrens on the 9th August, 1844. Harimohan gave a fitting reply to this letter¹⁴³ on the 29th August which was placed at the meeting of the Society on the 4th September, 1844.

Rajendralal Mitra wrote that Ramkamal took special interest in the development of the museum of the Society¹⁴⁴ and for some time he acted as the "Assistant Superintendent of the Museum".¹⁴⁵ Asutosh Mookherjee stated that Ramkamal Sen placed at the disposal of the Society interesting and curious objects collected from various parts of the country.¹⁴⁶ Of the objects he presented, the following items were of special significance :—

1. Implements used in the Charak Ceremony.¹⁴⁷
2. Stuff used by the *Byragis*.¹⁴⁸
3. Musical instruments used by the Indians.¹⁴⁹
4. A dried fish.¹⁵⁰
5. Ornaments worn by Oriah women.¹⁵¹
6. 3 small Buddha images.¹⁵²

Item Nos. 1, 2, 3 and 5 definitely show a trend of mind which was rare among Indians in the early nineteenth century. He had positive interest in Socio-Anthropological studies. Among the important Indians of his days, he was possibly the lone Indian who had an attitude to bring to light some aspects of life of the common man who was meek and there was less or no interest among prominent members of the Society in his culture.

Charak ceremony, for example, was popular among the people of the lower castes. Ordinary villagers both men and women took it

for religion. Ramkamal, therefore, took interest in Charak ceremony and he thought it proper to present the implements used in the ceremony to the museum of the Society. To know India, the realities of the common man's life had to be carefully studied and thoroughly understood for real India lived in villages submerged in ignorance and prejudices.

Byragis were the village bards. They could be seen in almost every village of Bengal. They had their peculiar dress—ascetic type and they lived on alms given by the householders. They were humble, soft-spoken and a very poor people. They were the followers of Vaisnava faith. They had a role to play in the cultural life of Bengal. Devotional songs sung by the *Byragis*, particularly at dawn would create a wonderful sensation on the emotional plain of the Bengali people—an experience which could only be appreciated by one who had the fortune to be brought up in a Bengali home.

The philosophy of life of this class of people (*Byragis* & Bauls) and their life-style influenced the thoughts and writings of the Bengali poets, writers and philosophers for ages. Even Rabindranath Tagore, the great humanist was also deeply indebted to them. In the cultural stations like Brindabana, Benares and Puri, they could be found in hundreds. They became the vehicles through whom "the life-giving touch of the teachings of *Vaisnava* saints and poets"¹⁵³ was brought to the masses. Ramkamal himself was a devout *Vaisnava*. The role played by the *Byragis* in spreading the *Vaisnava* thoughts among the masses and that too in the language of the masses would be of some interest to the students of Sociology. By donating the stuff used by the *Byragis* to the museum, Ramkamal attracted the attention of the educated community to this class of common people who actually performed the uncommon task of preaching *Vaisnavism* in the popular form among the people generally.

In the musical instruments (51 items in all) presented by Ramkamal the instruments used by the tribals even were included. He had interest in the total Indian culture which had different varieties and forms.

Ramkamal presented ornaments used by Oriah women. They also showed the same trend of mind. He wanted to show an aspect of the cultural life of Orissa, particularly the aesthetic aspect of the ornaments used by the ladies of that part of India, through these gifts.

He had interest in science and scientific objects. He naturally presented a dried fish to the museum, though he himself was a vegetarian. He was never a bigot. He could show catholicity of mind in the interest of education.

He presented three Buddha images to the museum. He certainly felt that Buddha represented the very spirit of India, though Buddhism was more or less extinct in the land of its birth. He had the fortune to see before his eyes how effectively James Prinsep, his co-labourer in the Asiatic Society, in co-operation with the celebrated Kamalakanto of the Calcutta Sanskrit College was labouring to reconstruct the history of Buddhist India and whose untiring efforts made it possible to open up a field which was covered under darkness for centuries. A brilliant epoch made its appearance which not only added further dignity to the rich heritage of Indian culture but also made the history of mankind more meaningful.

Ramkamal Sen wrote "a short account of the *charak puja* ceremonies, and a description of the implements used". The paper was read before the Asiatic Society in 1829 and it was published in the Journal of the Asiatic Society in 1833.¹⁵⁴

In this article an account of the origin and practice of the ceremony was given. He described in detail, the various aspects of the ceremony and in the process made some significant comments which would help us to understand his opinion on the subject, particularly a religious one.

The word *charak*, according to Ramkamal, was derived from *chakra* or *charaka*, which meant a circle and was used to signify moving or swinging in a circular direction. *Charak Sannyasa* implied leaving off wordly business, living abstemiously, observing austerities, for the propitiation of Lord Siva. *Charak* festival was improperly termed by many as *charak puja*¹⁵⁵ perhaps from the notion that every ceremony observed by the Hindus of Bengal was a kind of *puja* or religious worship and considered as Hinduism. The result was that the whole body of the Hindus were charged with the absurdity of the act.

The act, wrote Ramkamal, was performed by "the *sudra* class only and generally by the lowest castes and most dissipated characters". The greatest number engaged themselves in it as a lucrative exhibition or to acquire a character for courage in the opinion of their friends. The original rules had mostly fallen into disuse, and new ones were substituted as convenience required. He emphati-

cally declared that the ceremony which had been called an act of piety was "converted into an occasion of dissipation, drinking, gambling, and acts of immorality".

His observations and comments were clear enough. They showed that Ramkamal was not blind to every thing that passed in the name of Hinduism. He had an open mind and he was bold enough to criticise and condemn practices which seemed to him irrational and bad for the community.

Visibly in the Asiatic Society Ramkamal was mainly concerned with the financial and administrative matters. He was anxious to see the Society placed on a sound financial footing. His labour in the Society was due primarily to his love for oriental literature. But the attitude of the Government towards the oriental literature, naturally made Ramkamal anxious about its future.

In 1829, Indians who were elected members seemed to be taking interest in the Asiatic Society. Unfortunately their interest did not last long. In the years that followed their participation in the activities of the Society was becoming negligible. The only exception was Ramkamal Sen who for decades patiently worked for the cause of the Society. Prasanna Kumar Tagore, for some reason or other, dropped his membership. He was elected a member again in February, 1837. He was the second Indian who also took some interest in the Society. He had by invitation been joined to the statistical committee of the Society.¹⁵⁶ Membership of the Society was possibly considered to be a status symbol. Moreover, it helped one to have an access to the elite groups of the European community, who were generally highly placed civilians. These reasons prompted wealthy Indians to be associated with the Society.

Ramkamal's involvement was total as long as he felt that the Institution was serving the cause for which it was created. He fearlessly put forward his points of views even when they were not favoured by an influential section of the European members.¹⁵⁷ But when he felt that the Institution had ceased to function in the way it should, he quietly withdrew himself.

Ramkamal and Prasanna Kumar both wanted to involve more Indians in the Society. Whether this attitude was the result of group rivalries in the Hindu community outside, or it was their genuine desire to involve educated Indians, could not be definitely ascertained. But Ramkamal and Prasanna Kumar, though they belonged to rival groups of wealthy Hindu community of Calcutta,

would be found working together in close co-operation not only in one organisation but in many and it would therefore be logical to hold that their genuine desire was to cooperate with the educated Europeans to explore the past of this ancient land.

Ramkamal had been intimately connected with the Asiatic Society of Bengal since the first decade of the nineteenth century. He had the fortune to witness very closely, the growth, development and decay of the period of orientalism in India. He joined the Society when he was just an obscure young man of 20 years of age. In his boyhood days, it was very difficult to receive satisfactory education because the opportunity was rare. In fact, he was never properly schooled. It was the Asiatic Society of Bengal which was responsible for shaping the mental and intellectual life of Ramkamal Sen.

The atmosphere of the Society was surcharged with the intellectual activities of the best European talents available in the country. Ramkamal was brought up in that atmosphere. In reality he grew with the Society. He assiduously cultivated his mental and intellectual faculties and in due course established himself in the contemporary Calcutta society as an Indian intellectual and a literary man. Dr Wilson remarked that his "acquirements and his connection with the Asiatic Society fostered in him that love of knowledge which was one of the peculiarities of his character."¹⁵⁸ He kept alive "that love of knowledge" to the end of his life. His intellectual eminence was respectfully acknowledged by the Europeans and Indians alike. He was elected the Native Secretary and a member of the committee of papers of the Society. By honouring Ramkamal, the Asiatic Society of Bengal honoured its first Indian associate who grew and developed with the Society and served the Society with sincerity and dedication up to the end of his life.

NOTES

1. Lokenath Ghose, *The Modern History of the Indian Chiefs, Rajas, Zamindars etc.*, Part II, Calcutta, 1881, p. 129.
2. Peary Chand Mittra, *Life of Dewan Ramcomul Sen*, Calcutta, 1880, p. 7.
3. Progs. A.S.B., Vol. 4, p. 144, meeting dated the 12th December, 1832.
4. Ram Gopal Sanyal ed., *Reminiscences and Anecdotes of Great Men of India Both Official and Non-official for the Last One Hundred Years*, Vol. II, Calcutta, 1895, pp. 38-39.

5. Progs. A.S.B., Vol. 4., p. 144, meeting dated the 12 December, 1832.
6. Peary Chand Mittra, *Life of Dewan Ramcomul Sen*, Calcutta, 1880. p. 7.
7. Ibid.
8. J. C. Marshman, Bengal as it is, The Calcutta Review, Vol. III, January-June, 1845, p. 208.
9. David Kopf, *British Orientalism and the Bengal Renaissance*, Calcutta, 1969, p. 117.
10. Progs. A.S.B., Vol. 4, p. 144, meeting dated the 12 December, 1832.
11. Ibid, Vol. 2, p. 13, meeting dated the 5 October, 1803.
12. David Kopf, *British Orientalism and the Bengal Renaissance*, Calcutta, 1969, p. 116.
13. Progs. A.S.B., Vol. 2, p. 13, meeting dated the 5 October, 1803.
14. Ibid., Vol. 2, p. 14, meeting dated the 4 January, 1804.
15. Prog, A.S.B., Vol. 2, p. 14, meeting dated the 4 April 1804.
16. Lokenath Ghose, *Modern History of the Indian Chiefs, Rajas, Zamindars etc.*, Part II, Calcutta, 1881, p. 129.
 "In 1802, John Gilchrist and William Hunter obtained sufficient patronage to found the important Hindoostanee Press, ...In 1804 when Gilchrist returned to England, Hunter became sole proprietor of the press." David Kopf, *British Orientalism and the Bengal Renaissance*, Calcutta, 1969, p. 116.
17. Gilchrist was elected to the Committee of Papers in October, 1803.
18. Earl of Ronaldshay, *The Heart of Aryavarta*, London, 1925, p. 48.
19. Peary Chand Mittra, *Life of Dewan Ramcomul Sen*, Calcutta, 1880, p. 7.
20. Society's Secretary, Dr. Hunter as a "part Proprietor of the Hindoostanee Press" was found to be trying to get the contract of printing at the Hindoostanee Press the ninth volume of the Asiatick Researches. W. Hunter's letter to the President and Members of the Committee of Papers, Asiatick Society, Calcutta, 2nd August, 1805, Sl. No. 96.
 Dr. Hunter actually won the contract in 1808. David Kopf, *British Orientalism and the Bengal Renaissance*, Calcutta, 1969, p. 116.
21. Dr. Wilson's letter dated the 2nd November, 1844 quoted in Peary Chand Mittra, *Life of Dewan Ramcomul Sen*. Calcutta, 1880, pp. 43-44.
22. Progs. A.S.B., Vol. 2, p. 37, meeting dated the 6 December, 1809.
23. Ibid., Vol. 2, p. 38, meeting dated the 7 February, 1810.
24. Progs. A.S.B., Vol. 2, p. 45, meeting dated the 3rd April, 1811.
25. In 1811, Leyden accompanied the Governor General to Java, where, searching eagerly for oriental manuscripts in an ill-ventilated library, in the pestilential month of August, he was attacked with fever, and died in three days, at the age of thirty six.
 N. Chévers, *Surgeons in India—Past and Present*, The Calcutta Review, Vol. XXIII, July-December, 1854, p. 240.
26. Progs. A.S.B., Vol. 2, p. 48, meeting dated the 4 December, 1811.
27. Ibid., Vol. 2, p. 70, meeting dated the 7 June, 1815.
28. Ibid., Vol. 2, p. 72, meeting dated the 2nd August, 1815.
29. Ibid., Vol. 2, p. 77, meeting dated the 7 June, 1816.
30. Progs. A.S.B., Vol. 3, p. 64, meeting dated the 13 November, 1819.
31. Ibid., Vol. 4, p. 144, meeting dated the 12 December, 1832.

32. *The Second Report of the Calcutta School Book Society for 1818-19.* Appendix No. XII, p. 57.
33. Ramkamal's letter to Dr. Wilson, Calcutta, 9 February, 1820, MSS. Eur. E301/8 (Misc. Vol.)
34. Progs. A.S.B., Vol. 3, p. 88, meeting dated the 17 June, 1820.
35. Progs. A.S.B., Vol. 3, p. 93, meeting dated the 16 September, 1820.
36. Ibid., Vol. 3, p. 107, meeting dated the 13 April, 1821.
37. Ibid., Vol. 4, p. 144, meeting dated the 12 December, 1832.
38. Ibid., Vol. 3, p. 113, meeting dated the 14 July, 1821.
39. Progs. A.S.B. Vol. 3, p. 116, meeting dated the 14 July, 1821.
40. Progs. A.S.B., Vol. 3, p. 117, meeting dated the 14 July, 1821.
Number of Subscribers.
The 2nd Qr. of 1820 1st July, 1820 : 88 Subscribers @ 16/-
The 3rd Qr. of 1820 1st Oct. 1820 : 88 " @ 16/-
The 4th Qr. of 1820 1st Jan. 1821 : 88 " @ 16/-
The 1st Qr. of 1821 1st Apr. 1821 : 84 " @ 16/-
41. Progs. A.S.B., Vol. 3, p. 261, meeting dated the 7 September, 1825 showing the amount collected in 1823 and 1824.
Progs. A.S.B., Vol. 3, p. 301, meeting dated the 6 September, 1876 showing the amount collected from 1. 1. 1825 to 31. 8. 1826.
Progs. A.S.B., Vol. 4, p. 5, meeting dated the 4 July, 1827 showing the amount collected from 1. 9. 1826 to 1827.
42. Progs. A.S.B., Vol. 4, p. 53, meeting dated the 3rd September, 1828.
43. Ibid., Vol. 4, p. 68, meeting dated the 7 January, 1829.
44. Ibid., Vol. 4, p. 74, meeting dated the 4 March, 1829.
45. Ibid., Vol. 4, p. 77, meeting dated the 6 May, 1829.
(Activities of Ramkamal have been described later).
46. Progs. A.S.B., Vol. 4, p. 78, meeting dated the 6 May, 1829.
47. Ibid., Vol. 4, p. 83, meeting dated the 1st July, 1829.
48. Ibid., Vol. 4, p. 84, meeting dated the 1st July, 1829.
49. Progs. A.S.B., Vol. 4, p. 84, meeting dated the 1st July, 1829.
50. Messrs Mackintosh & Co. were made the Treasurers of the Society in May, 1830.
Progs. A.S.B., Vol. 4, p. 97, meeting dated the 5 May, 1830.
51. Ibid., Vol. 5, p. 85, meeting dated the 1st July, 1829.
52. Progs. A.S.B., Vol. 4, p. 101, meeting dated the 7 July, 1830.
53. Ibid., Vol. 4, p. 129, meeting dated the 4 July, 1832.
54. Ibid., Vol. 4, p. 137, meeting dated the 5 September, 1832.
55. Progs., Vol., 4, p. 112, meeting dated the 9 March, 1831.
56. Committee of Papers :—At the meeting held on the 29th September, 1796, it was resolved to elect annually a committee of papers to conduct the business of the Society... In 1846, the committee of papers was designated as council. Sibadas Chaudhuri ed., *Proceedings of the Asiatic Society*. Vol. I, 1784-1800, Calcutta, 1980, p. 32.
57. Progs. A. S. B., Vol. 4, pp. 144-145, meeting dated the 12 December, 1832.
58. Progs. A. S. B., Vol. 4, p. 145, meeting dated the 12 December, 1832.
59. Ibid., Vol. 4, p. 145, meeting dated the 12 December, 1832.

60. Ibid., Vol. 4, p. 146, meeting dated the 12 December, 1832.
61. Ibid., Vol. 4, p. 144, meeting dated the 12 December, 1832.
62. Progs. A. S. B., Vol. 4, p. 148, meeting dated the 19 December, 1832.
63. Ibid., Vol. 4, p. 157, meeting dated the 9 January, 1833.
64. Ibid., Vol. 4, p. 158, meeting dated the 9 January, 1833.
65. Progs. A. S. B., Vol. 4, p. 159, meeting dated the 9 January, 1833.
66. Ibid., Vol. 4, p. 162, meeting dated the 20 February, 1833.
67. Ibid., Vol. 5, p. 2, meeting dated the 27 March, 1833.
68. Ibid., Vol. 5, p. 2, meeting dated the 27 March, 1833.
69. Progs. A. S. B., Vol. 5, p. 4, meeting dated the 27 March, 1833.
70. Ibid., Vol. 5, p. 2, meeting dated the 27 March, 1833.
71. Ibid.
72. Ibid.
73. Progs. A. S. B., Vol. 5, p. 2, meeting dated the 27 March, 1833.
74. Ibid., Vol. 5, pp. 2-3, meeting dated the 27 March, 1833.
75. Ibid., Vol. 5, p. 3, meeting dated the 27 March, 1833.
76. Ibid.
77. Progs. A. S. B., Vol. 5, p. 3, meeting dated the 27 March, 1833.
78. Ibid.
79. Ibid.
80. Ibid.
81. Ibid.
82. Progs. A. S. B., Vol. 5, p. 4, meeting dated the 27 March, 1833.
83. Ibid., Vol. 5, pp. 11-12, meeting dated the 26 June, 1833.
84. Ibid., Vol. 5, p. 12, meeting dated the 26 June, 1833.
85. Progs. A. S. B., Vol. 5, p. 12, meeting dated the 26 June, 1833.
86. Ibid., Vol. 5, p. 13, meeting dated the 26 June, 1833.
87. Ibid., Vol. 5, p. 14, meeting dated the 31st July, 1833.
88. Prog. A. S. B., Vol. 5, p. 22, meeting dated the 30 January, 1834.
89. Ibid., Vol. 5, pp. 22-23, meeting dated the 30 January, 1834.
90. Ibid., Vol. 5, p. 47, the meeting dated the 14 January, 1835.
91. Progs. A. S. B., Vol. 5, p. 58, meeting dated the 6 May, 1835.
92. Ibid., Vol. 5, p. 59, meeting dated the 6 May, 1835.
93. Ibid., Vol. 5, p. 61, meeting dated the 3rd June, 1835.
94. Ibid., Vol. 5, p. 63, meeting dated the 3rd June, 1835.
95. Ibid., Vol. 5, pp. 62-63, meeting dated the 3rd June, 1835.
96. Progs. A. S. B., Vol. 5, p. 63, meeting dated the 3rd June, 1835.
97. Progs. A. S. B., Vol. 5, p. 63, meeting dated the 3rd June, 1835.
98. Ibid., Vol. 5, p. 65, meeting dated the 1st July, 1835.
99. Ibid., Vol. 5, pp. 65-66, meeting dated the 1st July, 1835.
100. Progs., A. S. B., Vol. 5, pp. 66-67, meeting dated the 1st July, 1835.
101. Ibid., Vol. 5, p. 67, meeting dated the 1st July, 1835.
102. Progs. A. S. B., Vol. 5, pp. 68-69, meeting dated the 5 August, 1835.
103. Ibid., Vol. 5, p. 69, meeting dated the 5 August, 1835.
104. Ibid., Vol. 5, pp. 71-73, meeting dated the 2nd September, 1835.
105. Trevelyan advocated Sir William Jones' mode of expressing Indian characters in the Roman Alphabet. Gilchrist had suggested another method of

Romanising Indian languages which was adopted in Governmental Surveys and Records. (For details consult *the Asiatic Journal and Monthly Register* —January-April, 1835, pp. 5-6 and for Dr. S. K. Chatterjee's views on the subject *Journal of the Department of Letters*, Vol. XXVII, C. U., 1935, pp. 13-15). According to Wilson, Vol. Trevelyan was another Gilchrist, rather better taught perhaps "but quite as absurd"—Peary Chand Mittra, *Life of Dewan Ram Comul Sen*, Calcutta, 1880, pp. 17-18.

106. Ramkamal's letter to Dr. Wilson, Calcutta, 28 November, 1835. MSS Eur. E 301-2.
107. Progs. A. S. B., Vol. 5, p. 85, meeting dated the 2nd March, 1836.
108. Ibid., Vol. 5, p. 88, meeting dated the 6 April, 1836.
109. Ramkamal's letter to Dr. Wilson, Calcutta, 29 June, 1836. MSS Eur. E 301-2.
110. Progs. A. S. B., Vol. 5, p. 105, meeting dated the 7 December, 1836.
111. Ibid., Vol. 5, p. 118, meeting dated the 7 June, 1837.
112. Progs. A. S. B., Vol. 5, p. 119, meeting dated the 7 June, 1837.
113. Ibid., Vol. 5, p. 119, meeting dated the 7 June, 1837.
114. Ibid., Vol. 4, p. 157, meeting dated the 9 January, 1833 ;
Vol. 5, p. 20, meeting dated the 30 January, 1834 ;
Vol. 5, p. 46, meeting dated the 14 January, 1835 ;
Vol. 5, p. 80, meeting dated the 6 January, 1836 ;
Vol. 5, p. 109, meeting dated the 4 January, 1837.
115. Progs. A. S. B., Vol. 6, p. 59, meeting dated the 10 October, 1838.
116. Ibid., Vol. 6, p. 60, meeting dated the 14 November, 1838.
117. Progs. A. S. B., Vol. 6 p. 61, meeting dated the 14 November, 1838.
118. Ibid., Vol. 6, p. 61, meeting dated the 14 November, 1838.
119. Ibid., Vol. 6, p. 66, meeting dated the 2nd January, 1839.
120. Ibid., Vol. 6, p. 68, meeting dated the 2nd January, 1839.
121. Ibid., Vol. 6, p. 69, meeting dated the 2nd January, 1839.
122. Progs. A. S. B., Vol. 6, p. 88, meeting dated the 3rd July, 1839.
123. Ramkamal's letter to Dr. Wilson, Calcutta, 14 February, 1840, MSS Eur. E 301/3.
124. Ibid.
125. Ramkamal's letter to Dr. Wilson, Calcutta, 14 February, 1840, MSS Eur. E. 301/3.
126. Ibid., Calcutta, 18 April, 1840, MSS Eur. E 301/3.
127. Ibid., Calcutta, 18 April, 1840, MSS Eur. E 301/3.
128. Ramkamal's letter to Dr. Wilson, Calcutta, 18 April, 1840, MSS Eur. E. 301/3.
129. *J. A. S. B.*, New Series, Vol. IX, Part I, January-June, 1840, p. 338.
130. Ramkamal's letter to Dr. Wilson, Calcutta, 6 August, 1840, MSS Eur. E 301/3.
131. *J. A. S. B.*, New Series, Vol. IX, Part I, January-June, 1840, p. 215.
132. Ramkamal's letter to Dr. Wilson, Calcutta, 6 August, 1840, MSS Eur. E 301/3.
133. Ibid., Calcutta, 18 September, 1840, MSS Eur. E 301/3.
134. Ibid., Calcutta, 15 November, 1840, MSS Eur. E 301/3.

135. Ibid., Calcutta, 18 January, 1841, MSS Eur. E 301/4.
136. Ibid., Calcutta, 15 October, 1841, MSS Eur. E 301/4.
137. Ramkamal's letter to Dr. Wilson. Calcutta, 12 May, 1842, MSS Eur. E 301/4.
138. Ibid., Calcutta, 1 June, 1843, MSS Eur. E. 301/5.
139. Ibid., Calcutta, 18 January, 1844, MSS Eur. E 301/5
140. On July 10, 1800 Wellesley proclaimed the formation of a college at Fort William which he hoped would transform inept, self-seeking servants of the East India Company into efficient, devoted civil servants of the British Empire in India. The college was brought into being on November 24, 1800. David Kopf, *British Orientalism and the Bengal Renaissance*, Calcutta, 1969, p. 47.
141. Piddington's letter to Dr. Wilson, Calcutta, 12 February, 1843, MSS Eur. E 301/5.
142. *J. A. S. B.*, New Series, Vol. 13, Part 2, July-December, 1844, p. Lxxxii-Lxxxiii.
143. Note : The oriental letter of Harimohan Sen is available in the *J. A. S. B.*, New Series, Vol. 13, Part 2, July-December, 1844, p. Lxxxix-Xc.
144. Rajendralal Mitra, *Centenary Review of the Asiatic Society of Bengal from 1784 to 1833, Part I, History of the Society*, Calcutta, 1885, p. 35.
145. Progs. A. S. B., Vol. 4, p. 144, meeting dated 12 December, 1832.
146. Asutosh Mookherjee, *The History of the Indian Museum, The Calcutta Review*, Vol. CXXXIX, Second Year of New Series, January, 1914, p. 3.
147. Progs. A. S. B., Vol. 4, p. 80, meeting dated the 6 May, 1829.
148. Ibid., Vol. 4, p. 85, meeting dated the 1st July, 1829.
149. Ibid., Vol. 4, pp. 90-91, meeting dated the 5 November, 1829.
150. Ibid., Vol. 4, p. 110, meeting dated the 5 January, 1831.
151. Ibid., Vol. 4, p. 146, meeting dated the 12 December, 1832.
152. Ibid., Vol. 4, p. 160, meeting dated the 9 January, 1833.
153. N. K. Sinha, *The Economic History of Bengal, 1793-1848*, Vol. III, Calcutta, 1970, p. 100.
154. *J. A. S. B.*, Vol. II, January-December, 1833, pp. 609-613.
155. In his "Sketch of the Religious Sects of the Hindus". Dr. Wilson wrote that *charak puja* was "not directed nor countenanced by any of the authorities of the Hindus, not even by the Tantras." *Asiatic Researches, or Transactions of the Society etc.*, Vol. XVII, 1832, p. 230. Ramkamal read his paper on *charak* before the Society in 1829.
156. Progs. A. S. B., Vol. 6, p. 3, meeting dated the 5th July, 1837.
157. Memorandum of Ramkamal on the subject of printing of the Asiatic Researches will be found in the Progs. A. S. B., Vol. 5, pp. 2-4, meeting dated the 27 March, 1833.
158. Wilson's letter dated the 2nd November, 1844 quoted in Peary Chand Mittra, *Life of Dewan Ramcomul Sen*, Calcutta, 1880, p. 44.

THE MESSAGE OF NATIONAL INTEGRATION IN CLASSICAL SANSKRIT LITERATURE*

PRATAP BANDYOPADHYAY

I

National integration has been a most, if not the most, crucial problem since the Independence of India. Several factors like the vastness of the land, largeness of the population, varieties of languages and dialects spoken, diversity of creeds and customs have contributed to this problem. Added to all these is the part played by religious dogmas that have threatened the unity of the nation from time to time, including the very recent ones. When the problem is so acute and a possible solution has to be urgently sought at the social as well as the administrative level, why should we divert our attention to the age-old days and, in particular, talk about studying ancient culture as well as classical languages and literatures with such earnestness and zeal? Any emphasis on Sanskrit and the related languages at the present moment, therefore, will naturally invite a big question : Why Sanskrit? Particularly because, Sanskrit is widely believed to be the language of the Hindus, specially of the Brahmanic elite. The message of Sanskrit literature is often said to be sectarian and non-secular and, as such, detrimental to the national integration of the secular Republic of India.

In the present paper we propose to show that the above belief is based on the ignorance of facts and misunderstanding of the intrinsic spirit of Sanskrit literature.

II

It is true that Sanskrit is an Indo-Aryan language and was spoken by the Aryans, along with Prakrit, which was perhaps more widely spoken as a language of the masses. The Aryans later on came to be known as the Hindus because their civilization grew on the bank of the river Sindhu. Therefore, it is historically a fact that Sanskrit was a language of the Hindus and it is also a fact that for all religious communications, of which the Brahmins took the helm, the language used was Sanskrit.¹ But this does not make the language

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and its literature sectarian. After the advent of the Muslims and subsequently with people of other faiths and creeds creeping in, India became a confluence of many religions and people of various faiths and creeds got merged in the mainstream of the Indian culture. The contribution of Muslim and British patronage to Sanskrit learning is now an acknowledged fact.² There are poems composed in honour of Muslim patrons. The great Sanskrit poet and literary critic Paṇḍitarāja Jagannātha was patronized by no less staunch a Muslim emperor than Shāh Jahān in the 17th century A.D. A number of Muslim poets contributed to the literary treasure of Sanskrit and even a later *Upaniṣad* appeared under the title *Āllopaniṣad*. A vast secular literature in Sanskrit can also be hardly overlooked. All this goes against the charge that the Sanskrit language and its literature are sectarian.

In a paper under the caption 'The Role of Sanskrit in the Cultural Unification of India'³, the late Professor Satkari Mookerjee has shown how the Sanskrit language unified the whole of India culturally, and he rightly remarked in the conclusion :

"The surest and the most effective way of recovering her (= India's) soul is to foster the cultivation of Sanskrit. It is Sanskrit which preserves India's heritage. Sanskrit was never a language of any province but of entire India. The scholars and thinkers of all parts of India have enriched it by their contributions and made it the perfect vehicle of all that is noble, good and beautiful. Sanskrit has unified the whole of India."⁴

The aforesaid paper of the late Professor contains an enlightening analysis of the glorious cultural heritage of India conveyed through the Sanskrit language. There is no need of hovering over the same issue here. Instead, let us focus our attention on the eternal message of the classical Sanskrit literature.

III

Though the legends and myths, plots and characters of the classical Sanskrit literature reveal predominantly the Hindu faith and tradition, the message left by it is universal. This message is one of a universal moral order, very close to that of the ancient Greek literature.⁵ The two great epics, viz., the *Rāmāyaṇa* and the *Mahābhārata* along with Guṇādhya's *Bṛhatkathā*, now lost, have acted as inexhaustible storehouse for the posterior Sanskrit literature. The plot of both the epics is constructed on the principle of justice

or *nīti*, or what the early Greek thinkers would call *dikê*. Rāvaṇa in the *Rāmāyaṇa* transgressed the bounds of the world order by abducting Sītā—an act of *anaucitya*, or *hybris* according to the terminology of the Greek thinkers—and hence he received the befitting punishment in the annihilation of his entire race. The same thing happened to the arrogant Duryodhana and Kauravas in the *Mahābhārata*, which tells us the story of a fight for justice (*dharma-yuddha*). As the Ālankārika records, the message of the two epics is that one should act like the righteous, such as Rāma, and not like the mischievous, such as Rāvaṇa.⁶ The above spirit permeates more or less through the entire realm of posterior Sanskrit literature based on the two epics.

The plots of all the works of Kālidāsa, the brightest star in the galaxy of classical Indian poets, reflect a moral philosophy. The *Raghuvamśa* begins with the story of King Dilīpa and his spouse Sudakṣiṇā, whose sufferings for want of a child are caused by the king's negligence shown to the divine cow Surabhi at the moment of his hurry to meet the queen after her periodical bath. Failure to do one's duty of paying homage to the adorable, says the poet, causes impediment to the attainment of prosperity.⁷ The king deviated from the ideal of duty or *dharma*, or what the Greek would call *aidos*. As an atonement of this, he had to serve Surabhi's daughter Nandini like an ordinary attending servant by the advice of Sage Vasiṣṭha, and when the atonement was completed, the king was rewarded with a son for his humility and faithfulness, which restored balance (Greek *sophrosynê*) in the laws of God. It is sufferings which bring wisdom to king Dilīpa from Sage Vasiṣṭha.⁸

King Daśaratha happened to kill the only child of a blind sage by mistake in course of hunting in the forest.⁹ Though unintentional, the act was a violation of the world order and, so, brought to the king a curse involving the loss of a son, because of the law of worldly existence that nothing goes unpaid. When the worst calamity actually befalls Daśaratha, he recalls the past incident and says to Kauśalyā in the *Rāmāyaṇa* making his own act responsible for everything, arguing that whatever one does, good or bad, bears results in one's own life :

*yad ācarati kalyāṇi śubhaṁ vā yadi vāśubhaṁ |
tad eva labhate bhadre kartā karmajam ātmanah¹⁰ ||*

The same was the case with Oedipus in the Greek story who

happened to kill his father and marry his mother without knowing the truth and hence met with a tragic end in life. Like Vālmiki's Daśaratha, Sophocles' Oedipus accuses himself in unambiguous words :

And it is I,
I and no other have so cursed myself.
And I pollute the bed of him I killed
by the hands that killed him. Was I not born evil ?
Am I not utterly unclean ?¹¹

However, the curse of Daśaratha, whose act was unintentional, first turned out to be a boon in the birth of four sons to him, who was pining for one.

The final canto of the *Raghuvamśa* depicts the pitiable career of Agnivarna, the last king of the race of Raghu, who deviated from the path of duty and brought downfall to the whole race. Needless to say that Kālidāsa did not like to drag the poem further.

The whole story of the *Kumārasambhava* is based on the idea of the transgression of the world order and readjustment of justice. For the punishment of the despotic demon Tāraka it was necessary for Kumāra to be born of Lord Śiva and to lead the army of Indra, who was taken as symbolizing the national hero of the land as early as the age of the *Ṛgveda*.

The *Meghadūta* consists in the eternal message of the heart of a separated lover through the yearning of the yakṣa, banished from Alakā to Rāmagiri. But Kālidāsa does not fail to note in the very opening verse that the yakṣa was banished by Kubera for his negligence of duty (*svādhikārapramattaḥ*).

Kālidāsa's sense of moral justice finds a unique expression in the *Abhijñānaśakuntala*, where the separation between Duṣyanta and Śakuntalā, caused by the curse of Durvāsas, is depicted as owing to Śakuntalā's negligence of duty to the guest. Probably Kālidāsa viewed also Duṣyanta's act of marrying the hermit's girl in the hermitage during the absence of the *kulapati* as an act of arrogance. The very curse of Durvāsas, not found in the *Mahābhārata* story, has been introduced by Kālidāsa for adding a moral note to the plot of the play and to elevate the character of his hero. Here too, as in the *Meghadūta*, the punishment matches well with the fault. The Indian mind believed neither punishment nor reward to be eternal and hence was possible the final reunion in the hermitage of Mārica

after the sublimation of the love through sufferings of the separated lovers. Here too, sufferings bring wisdom.

The same moral thought is illustrated in the works of other writers as well. The annihilation of the despotic Cedi king Śiśu-pāla by Lord Kṛṣṇa in the *Mahābhārata* story as well as in the *Śiśu-pālavadha* of Māgha is a well-known example.

The other side of the moral philosophy viz., that nothing goes unpaid, i.e. that anything to be achieved must be paid for. Duṣyanta and Śakuntalā both paid, through sufferings, for their heavenly reunion. The course of love is never a smooth one. Rāma, Agni-mitra, Purūravas, Cārudatta, Nala, Sitā, Pārvatī—the fulfilment of the love of each of them is an example to the point. In the case of Pārvatī, Kālidāsa explicitly argues that without penance a husband like Śiva and the love as his cannot be won.¹² For the same reason, when Sitā is abandoned by Rāma in the hermitage of Vālmiki, she takes it as the result of her own prebirth sin (*mamaiva janmāntara-pātakānāṃ vipākavisphūrjathur aprasahyaḥ*¹³) and determines to practise austere penance after giving birth to her child so that in the next birth Rāma may again be her husband, but with no separation to follow :

*sāham tapaḥ sūryaniviṣṭadṛṣṭir
ūrdhvaṃ prasūteṣ caritum yatiṣye |
bhūyo yathā me janāntare' pi
tvam eva bhartā na ca viprayogaḥ ||*¹⁴

Though the fatalism expressed in such utterances as those of Sitā may not sound very much appealing to a modern mind, the moral stand taken by such characters can be hardly underrated.

Arjuna's hard penance for obtaining weapons from Lord Śiva for fighting against the Kauravas successfully in the *Mahābhārata* story as well as the *Kirātārjunīya* of Bhāravi is an example to the same point.

The moral philosophy briefly discussed above bespeaks the universal Indian mentality irrespective of any sect or religion. Though certain concepts or beliefs such as rebirth and prebirth sin or merit are typically Hindu in character, the general sentiment revealed throughout is more or less common to the whole nation even today. It reflects the common teaching of all religions. An average Indian, Hindu or Muslim or one with any other religious tradition, believes even today that an evil act will produce evil results and a pious act

the good ones. It is this belief which keeps an average Indian in the restricted mode of life unless one is under the sway of evil forces, inner or outward, internal or external.

If this be rightly understood and adequately appreciated, the achievement of national integration will not be a far cry. For, it is not a common language, common dress or common customs etc. that unite a nation, but common sentiments, common ideology, common ethics and the like actually do so.

IV

Ancient India did not come as an integral empire under any sovereign ruler. Attempts at building such an empire, e.g., one under the Guptas, attained only occasional successes and lasted for short periods. National integration, in the modern sense of the expression, was not translated into a characteristic reality. Love for the possessed land and residence did not develop into love for the country in the social or political sphere. It is only in the works of great writers and messages of religious thinkers that we have glimpses of the whole country as an integral entity.

When Kālidāsa, in the very opening verse of the *Kumārasambhava*, refers to the divine mountain Himālaya in the northern direction (*asty uttarasyām diśi devatātmā himālayo nāma nagādhirājah*) he has the geography of whole India in his mind and not of any particular region. The Raghus of Kālidāsa were rulers of the entire country extended up to the ocean (*āsamudrakṣitīśānām*).¹⁵ His Śakuntalā is blessed by sage Kaṇva as the would-be co-wife of the earth with its four quarters (*caturantamahīsapatnī*)¹⁶, referring thereby to Duṣyanta as the sovereign ruler of the entire Bhārata. Words like *cakravartin*, *ekacchatra*, *sārvabhauma* to denote a paramount ruler are too common in Sanskrit literature to require particular mention.¹⁷

In this respect the *Meghadūta* has a special message insofar as this poem portrays, in the *Pūrvamegha*, a graphic picture of a vast central and northern expanse of the country from the Ramtek Hill (Rāmagiri) to the Himālayas, nay, up to Kālidāsa's dreamland of Alakā which exists only in the imagination of the farsighted (*krāntadarśin*) poet—with diverse lands, forests, mountains, rivers and people, interwoven into an integral whole, like pearls forming the necklace. The Yakṣa's address to the cloud may be taken as symbolizing the message of national integration, not only from the point of view of

the universal sentiment of love-in-separation (*vipralambhaśṅgāra*) as the predominant aesthetic taste (*aṅgirasa*) of the whole poem or love-in-enjoyment (*sambhogaśṅgāra*) and separation as subsidiary aesthetic tastes (*aṅgarasas*) of the individual descriptions, but also from the point of view of the graphic topography of the country presented with all the resources of the literary art. Reference may also be made, in this connexion, to the picturesque aerial view of the ocean and land from Laṅkā to Ayodhyā in the Thirteenth Canto of the *Raghuvamśa*, a matching counterpart of the *Pūrvamegha*. The two topographies roughly cover the entire length of the country from south to north¹⁸ narrated by the prince of poets with superb touches of the sentiments of love, affection, pathos and devotion. Thus, in the poet's pen we find a reflection of the country's integrity, which no ruler could translate into a political reality.

V

In the days of yore the seer of the *Upaniṣads* gave unique expression to his realization of the supreme one (*ekam evādvitīyam*). The idea of unity (*ekatva*) has found manifold expression in the garb of diversity in the entire realm of our philosophical speculations, art and literature. While the difference is apparent, the ultimate truth is the inner unity. This holds good not only within the four walls of Hindu religion, the origin of which goes back to the Vedas, but is equally true of our entire culture comprising many religions, the basic spirit of which is 'faith'.

The concept of *śraddhā*¹⁹, a term which is generally translated as 'reverence' or 'faith' and often implies submission as its culmination, is highly important in Hindu religion. Kālidāsa, in connexion with the description of the Himālayas in the *Meghadūta*, says :

*tatra vyaktaṁ dṛṣṭvādi caraṇanyāsam ardhendumauleḥ
śaśvat siddhair upacitabalim bhaktinamrah pariyāḥ |
yasmin dṛṣṭe karaṇavigamād ūrdhvam uddhūtapāpāḥ
saṁkalpante sthiraṇaṇapadaprāptaye śraddadhānāḥ ||*²⁰

The word *śraddadhānāḥ* ('the faithful ones') is highly significant here. For the attainment of the everlasting abode of the Pramathas, attendants of Lord Śiva, one must have faith in Him and in the fact that a sight of His footprints on the slabs of the mountain leads to the said goal. Granted that this is a myth, what Kālidāsa wants to

focus our attention on is the ideal concept of *śraddhā*. One who does not have faith is a non-believer, *āśraddadhāna puruṣa*, as the *Gītā* puts it (in a different context) in the following verse, where it is stated that one having no faith in the profound knowledge professed by the Lord is condemned to the cycle of birth and death :

āśraddadhānāḥ puruṣā dharmasyāśya parantapa |
aprāpya mām nivartante mṛtyusaṁsāravartmani ||²¹

The Muslim would call him a Kāfir—a word so important in Islām, but unfortunately very often misunderstood. Kāfir simply means the non-believer or disbeliever (from *√kufṛ* ‘to deny’, ‘to disbelieve’) and, as such, he has no place in Islām.²² If so, this is a most innocent expression, which should not leave any scope for misunderstanding on the part of the Hindu. On the contrary, this should enlighten the avenue to unity between the Hindu and the Muslim. The Kāfir of Islām and the *āśraddadhāna puruṣa* of the *Gītā* point to the same condemned person, the non-believer. In the *Abhijñānaśakuntala*, Kālidāsa has emphasized the importance of *śraddhā* in one’s life when Mārīca refers to Śakuntalā, Duṣyanta and their son as *śraddhā*, *vidhi* (prescribed act) and *vitta* (wealth) :

diṣṭyā śakuntalā sādhvī sad apatyam idaṁ bhavān |
śraddhā vittaṁ vidhiś ceti tritayaṁ tat samāgatam ||²³

Elsewhere the *Gītā* says : *śraddhāvān labhate jñānam*²⁴ (‘the faithful or submissive person attains knowledge’). The knowledge (*jñāna*) in question is the supreme knowledge imparted by the Lord and *śraddhā* is faith in and submission to Him, the divine preceptor of Arjuna. Our *ācārya* claim that without *śraddhā*, faith in and submission to the preceptor, no knowledge is possible. It is with this spirit of faith and submission that the Qurānic prayer runs : *rabbe zednī elmān*

(O my Lord, increase me in knowledge).²⁵

The very word *upaniṣad* means knowledge attained at the feet of an authentic preceptor, i.e., knowledge attained through submission. The disciple’s faith in the authenticity of the preceptor is definitely implied. Śrīharṣa says toward the end of his *Naiṣadhiya-carita* that the aesthetic taste of his poem can be relished by one only if its knots are loosened by the instruction of a preceptor served with reverence (i.e., with submission at his feet) :

śraddhārāddhaguruslathikṛtadṛḍhagranthiḥ samāsādayatu
etatkāvyarasormimajjanasukhavyāsajjanaṁ sajjanah ||²⁶

The very word Islām means 'submission' (from *√salm*, 'to submit') and the person submissive to the will of God (Allah) is called Muslim. The Hindu and the Muslim are thus the followers of the same ideal. Any adversity between the two is, therefore, uncalled for. The adversity created from time to time is a foul play of evil-mongers mainly for political reasons. Great personalities like Alberuni, Dārā Shukoh, Raja Rammohan Roy, Ramkrishna Paramahansa and Swami Vivekananda rose far above this narrow level of evil thoughts. Once this is realized, national integration will not be far to seek. Institutions like the Ramkrishna Mission and Ahmadiyya Muslim Mission are rendering a great service to the cause of national integration by focussing public attention on the common teachings of all religions. Emphasis on the study of Sanskrit as well as other classical languages and literatures, such as Arabic and Persian, will definitely help us toward this end. It is gratifying the Asiatic Society has convened a seminar on 'The Relevance of Sanskrit Studies in Modern India', as did the Visva Bharati do a similar one a year back. Let us hope that such seminars will produce their desired results.

Notes and References

1. In religious communications and philosophical speculations Sanskrit has been associated with the Hindus, just as Prakrit has been associated with the Jainas and Pali with the Buddhists.
2. See V. Raghavan, 'Sanskrit and Christianity', International Sanskrit Conference (March 26th-'31st, 1972, New Delhi), *Summary of Papers*, edited by V. Raghavan, Volume Two, pp. 88-89, 'Sanskrit and Islam', *ibid*, pp. 89-90.
3. *The Journal of the Bihar Research Society*, Buddha Jayanti Special Issue, Volume Two, Bihar Research Society, Patna (no date, Vol. I is dated 1956), pp. 342-362.
4. *Op. cit.*, p. 361.
5. A comparative study of this subject has been made by the present author in his paper 'Philosophy of Moral Order in Sanskrit Literature : Rediscovery of the Greek Concepts of *Artê*, *Aidos*, *Dikê*, *Sophrosynê* and *Hybris*', *Proceedings of the First International Sanskrit Conference*, New Delhi, March 1972, Volume III, Part II, General Editor—Dr R. K. Sharma, Rashtriya Sanskrit Sansthan, Delhi, 1981, pp. 187-97.
6. Cf. *rāmādivad vartitavyām na rāvaṇādivat-Kāvyaprakāśa* of Mammaṭa (With Sanskrit Commentary *Bālabodhini* by the late Vamanacharya Ramabhatta Jhalakikar, edited by Raghunath Damodar Karmakar, Sixth Edition, Bandarkar Oriental Research Institute, Poona, 1950), Ch. I, p. 10.

7. *pratibadhnati hi sreyaḥ puṇyapujavyatikramah* //—*Raghuvamśa*, I. 79(C. D) (*Kālidāsa Granthāvalī* [Complete Works of Kālidāsa], ed. by Revaprasāda, Dvivedi, Benaras Hindu University, Varanasi, 1976).
8. For parallel thoughts, see Aeschylus, *Agamemnon*, lines 174-78 (translated by Richmond Lattimore), *The Complete Greek Tragedies*, edited by David Grene and Richmond Lattimore, Vol. I, Aeschylus, The University of Chicago Press, Chicago and London, 1959, Third Impression, 1969; Sophocles, *Antigone* lines 1347-52 (translated by Elizabeth Wyckoff), *ibid.*, Vol. II, *Sophocles*, The University of Chicago Press, Chicago and London, 1959, Fourth Impression, 1974.
9. *Raghuvamśa*, Canto IX; *Rāmāyaṇa* ed. by Sivarama Sarma Vasistha, Chowkhamba Vidyabhavan, Varanasi, 1957, *Ayodhyākāṇḍā*, Cantos 63-64.
10. *Op. cit.*, *Ayodhyā*, 63. 6. One may recall here Mandodarī's lamentation after the death of her husband Rāvaṇa in the *Yuddhakāṇḍā*, where she makes Rāvaṇa responsible for his own downfall (111, 24-25). Similarly Dhṛtarāṣṭra makes himself responsible for the destruction of his race at the end of the war of Kurukṣetra (*Mahābhārata*, ed. Gita Press, Gorakhpur, Vol. III. 2014 Vikrama era, *Strīparvan*, 1. 13-19).
11. *Oedipus the King*, lines 819-23 (translated by David Grene), *op. cit.* Vol. II.
12. *avāpyate vā katham anyathā dvayaṇi tathāvidhaṃ prema patīḥ ca tādṛśaḥ* / *Kumārasambhava*, V. 2 (C-D) (*Kālidāsa Granthāvalī*, see Note 7).
13. *Raghuvamśa*, XIV. 62(C-D). Cf. Heracles' statement in Sophocles' *Trachiniae* : 'Always without a groan I followed my painful course'. Lines 1074 (translated by Michael Jameson), *The Complete Greek Tragedies*, Vol. II (see Note 8).
14. *Raghuvamśa*. XIV. 66.
15. *Ibid.*, I. 5 (C).
16. *Abhijñānaśakuntalā*, IV. 20 (A) (*Kālidāsa Granthāvalī*, see Note 7).
17. On such expressions and imperial rulers of ancient India, see D. C. Sircar, *Studies in the Geography of Ancient and Medieval India*, Second Edition Revised and Enlarged, Motilal Banarsidass, Delhi, 1971, pp. 4-16.
18. Cf. *uttaraṃ yat samudrasya himādreḥ caiva dakṣiṇam* / *varṣaṃ tad bhārataṃ nāma bhārati yatra santatiḥ* // *Viṣṇupurāṇa* (edited by Krishna Sastri Pitre with the Commentary *Vaiṣṇavākūta-candrikā* of Ratnagarbha Bhaṭṭācārya, Gopālanārāyaṇaprabhṛti-janatāmudrā-yantrālaya, Bombay, 1809 Śaka era) II.3.1.
Also : *uttaraṃ yat samudrasya himavaddakṣiṇaḥ ca yat* / *varṣaṃ tad bhārataṃ nāma yatreyaḥ bhārati prajā* // *Vāyupurāṇa* (edited by the Pandits of Anandashrama, Anandashrama Sanskrit Series, No. 49, Anandashrama Press, Poona, 1905). XLV. 75(C-D)-76 (A-B).
19. The word *śraddhā* is derived from the root *dhā* 'to set' with the prefix *śrat*, which is a synonym of *Satya* (truth) according to Yāska's *Nirukta*, III-13.18 (*Nirukta* with the Commentary *Rjvartha* by Durgācārya, edited by Govinda

Sastri and Chhotupati Tripathi, Sri Vekatesvara Press, 1982 Samvat, 1817 Śaka era). *Śraddhā* would thus mean 'that attitude of mind on which truth rest' (*satyam asyāṁ dhīyate*) *dharmārthakāmamokṣeṣu aviparyayeṇaivam etad iti yā buddhir utpadyate tadadhīdevatā bhāvākhya śraddhety ucyate* (*Durgā-cārya* on *Nirukta*, IX 30.2, p. 696) or 'resting of the mind on truth'. If *śrat* and *hrd* (heart) are admitted to be philologically connected, *śraddhā* would mean 'directing the heart toward a goal'. In the *Rgveda* one entire hymn (X. 151) is dedicated to *śraddhā*. For a detailed study of the concept, see K. L. Seshagiri Rao, *The Concept of Śraddhā (in the Brāhmaṇas, Upaniṣads and the Gītā)*, First Edition, Motilal Banarsidass, Delhi, 1974. The present author is indebted to his colleague Dr Biswanath Mukhopadhyay for drawing his attention to this book. Also : G. S. Pendse, *The Vedic Concept of Śraddhā*. Three Angels Memorial Trust, Pune, 1978.

20. *Meghadūta*. II.55 (*Kālidāsa Granthāvalī*, see Note 7)
21. IX.3 (*Mahābhārata*, *Bhīṣmaparvan*, Gita Press Ed., Vol. II, 2014 V.E., V. 33.3).
22. The author is indebted to his friend Principal Md. Shahidullah for this information. It may be noted in this connexion that Islam enjoins upon the Muslim six articles of faith—faith in God, Angels, scripture, prophets, the day of judgement and predestination. See *Funk and Wagnalls Standard Reference Encyclopedia*, Vol. 14, Editor in Chief—Joseph Laffan Morse, Standard Reference Works Publishing Company Inc., New York : under Islam, pp. 5044-45.
23. VII. 29
24. IV. 39 (A)
25. The Holy *Qurān*, XX (*Sūra Ṭwāhā*). 114. Two translations are possible : (i) O my Lord, increase my knowledge, (ii)...increase me in knowledge. (Md. Shahidullah).
26. XXII. 152 (C-D) (*Naiṣadhiyacarita* of Śrīharṣa with the Commentary *Naiṣadhiyaprakāśa* of Nārāyaṇa, edited by Narayan Ram Acharya, 9th Ed., Nirnaya Sagar Press, Bombay, 1952).

RELEVANCE OF SANSKRIT IN THE STUDY OF TECHNIQUE AND TREATMENT OF INDIAN PAINTING*

JAYANTA CHAKRABARTI

Whenever art or literature attains a cultural level it acquires also a certain sophistication. This sophistication extends to the manner of execution and to various degrees of art or literary appreciations. Technical terms and critical vocabularies are coined and symbolic or suggestive allegorical meanings begin to be attached. Religious and cultural associations automatically lend to it their own sophisticated and variegated meanings, ideas and notions. In fact, it is the entire cultural and emotional complex of the whole community belonging to a particular time which is contained in the whole process of art-creation, art-material and art-appreciation.

For proper understanding of Indian painting it is essential, therefore, to know the peculiar Indian vocabulary of the arts of different periods contained in the *śilpa sāstras* and literature in general. Even the techniques of Indian painting, sculpture and architecture which attained a high degree of sophistication can only be understood by referring to the literatures developed by and associated with those arts. Without studying them many of the figures, designs, iconography and even the colours employed in the illustrations cannot be understood with their full implications.

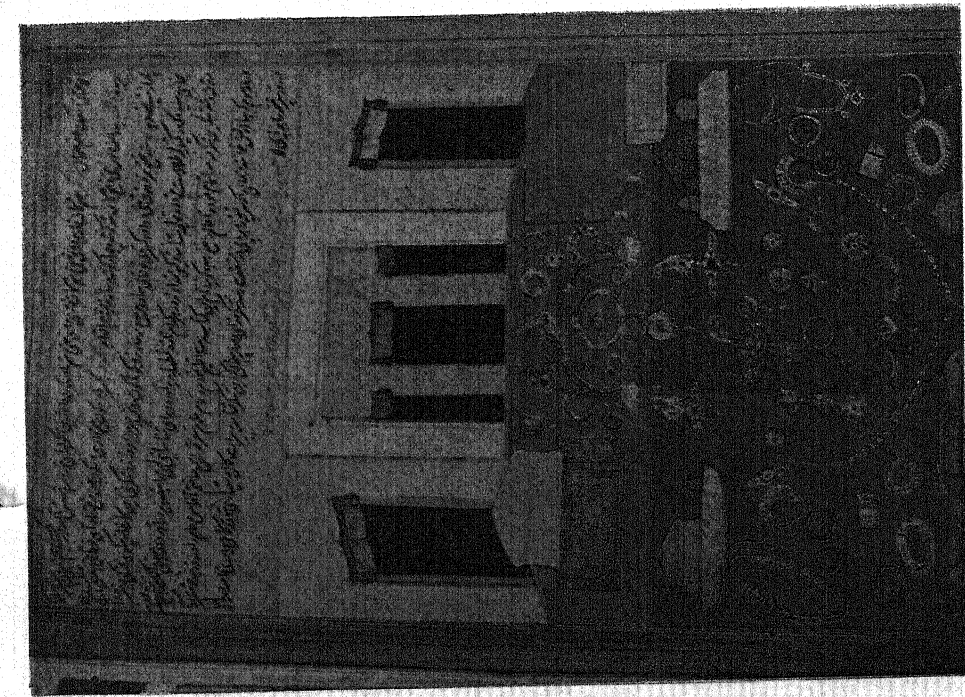
It may not appear, therefore, strange or surprising when we see that eminent scholars like Max Müller and Monier Williams, who had deep respect and love for Indian culture and Sanskrit literature, failed to appreciate the meaning and beauty of Indian art, since they did not pay any attention to those *śilpa* texts or literatures which explicate the meaning and purpose of Indian art. In a letter written to Williams Knight, for example, Max Müller wrote that 'The idea of the Beautiful in Nature did not exist in the Hindu mind. It is the same with their description of human

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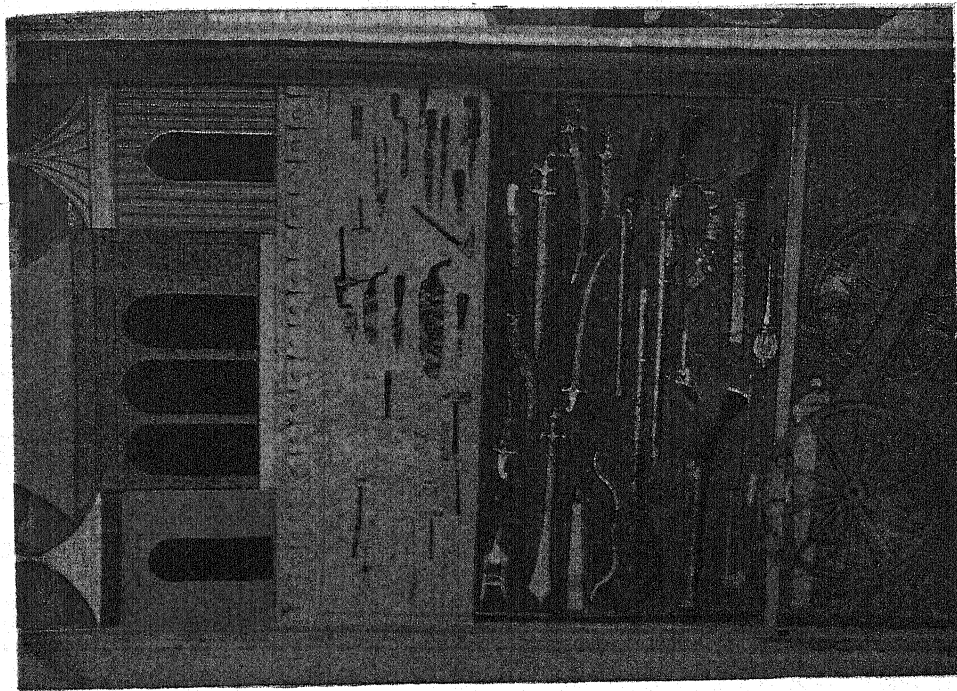
beauty...the Beautiful as such does not exist for them. They never excelled either in sculpture or in painting'.¹ As late as 1885 Sir Monier Williams also expressed that 'not a single large fine painting nor beautiful sculpture is to be seen throughout India. Even images of gods are only remarkable for their utter hideousness'.² It is certain that they would not have passed such remarks if they were aware of the principles of Indian image-making and picture making.

In the present discourse an attempt would be made to show how Sanskrit literatures and *śilpa* texts help us understand both the purpose and underlying meaning of the forms and the techniques of execution of the various stages of pictorial art.

In any study of Indian painting, particularly of the pre-modern era, the knowledge of the materials and media, their preparation and use, the meaning and purpose of the work, as also the technique and treatment involved in the execution of a painting is essential, specially because the history of Indian painting—mural or miniature—starts with an account of such extant specimens which are so mature, varied and excellent that they do unmistakably bespeak a very long and rich tradition behind them. But we have no specific knowledge or proof of the fact through what processes or pitfalls Indian painting had struggle to reach that level of excellence, since all the works, earlier than 1st century B.C., are lost due to the unfavourable tropical climate of the country. Over and above, the study of technique and treatment of painting of an early date has to face certain problems arising out of the fact that the entire process of creation and also of appreciation, of such visual art is essentially different from other kinds of art such as drama or poetry. In drama, or in poetry, the total effect comes at the end of a process and it grows through several stages in it ; its images, for example, are built upon images and the narration proceeds from one layer to another, and so on. In painting or sculpture, on the other hand, the total effect is produced by the total work all at once, leaving no trace of its gradual stages of development to the onlooker. The first-hand knowledge of the different stages of development of the earlier paintings through direct observation is not possible, and proper scientific investigation of Indian painting, particularly of miniatures, has hardly begun as yet. And a scientific analysis or investigation can only detect the material, medium and the ingredients used in the painting ; it can neither give any idea of

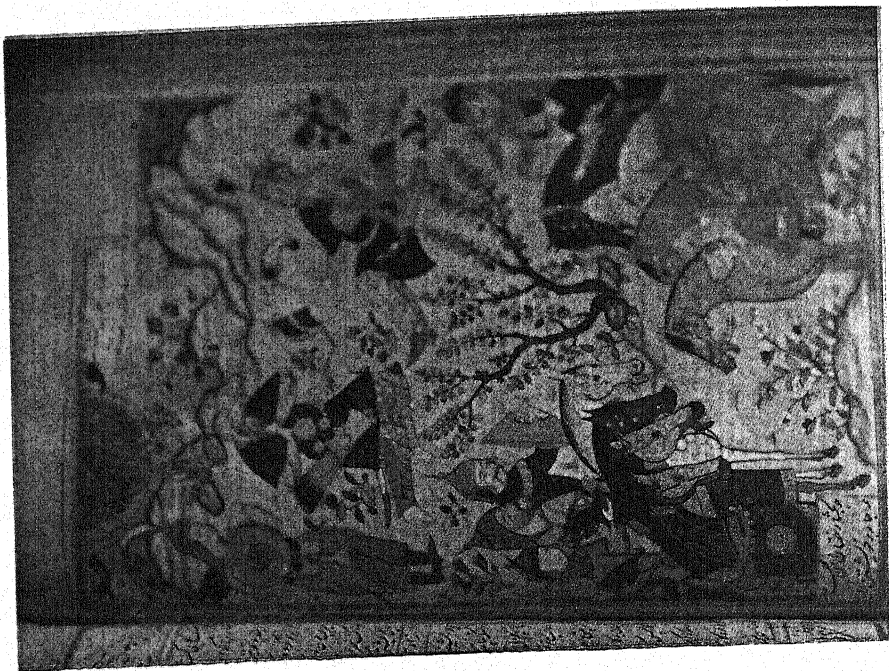


AIN-I-AKBARI

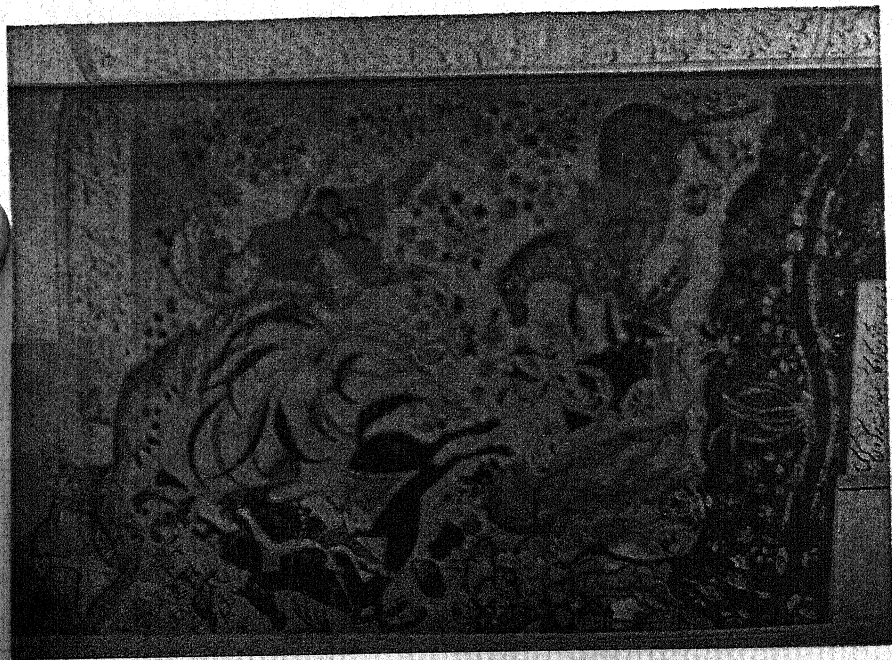


AIN-I-AKBARI

Shah Nama



Shah Nama



the treatment and gradual process of work of a painting, nor can explain why certain forms are distorted, why certain colours are applied in a particular composition or why arrangements of figures in a painting are done in a particular manner. In such a condition it would be rewarding to study the original works of art that have survived and to annotate them with the information supplied by the *śilpa* texts and other literary works, most of which are written in Sanskrit.

Sanskrit literature or *Kāvya*s only can throw light on the different art activities, indicating special preferences for particular branches of art of a period. During the time of Kālidāsa, for example, portrait painting appeared to be highly admired, and as a result the *nāyakas* or heroes in Kālidāsa's works are often found engaged in painting portraits of their lady-love. Bhāsa's *Pratimā Nātakam* informs us that commemorative statues of Indian rulers were installed in temples or in public monuments from an early date. Existence and wide appreciation of narrative murals during Bhavabhūti's time can be conjectured from the statements of the very first act of his *Uttara Rāma Charitam*. These literary works are of great help for having a general idea of the artistic trends and tendencies, art-awareness and art-appreciation of the community of the time, and may be utilised for reconstructing the socio-cultural history of a period. But for an in-depth study of the technique and treatment of subjects like painting, sculpture and architecture, one has to go through the *śilpa* texts concerned which contain a wealth of technical information. Here we will concentrate on the relevance of *śilpa* texts in the study of Indian painting only.

The different stages in the execution of a painting, referred to in the *Samarāṅgaṇa Sūtradhāra*³, are not unknown to a practising artist. But the details of each working stage are difficult to trace unless they are properly recorded by the artist himself or by a person who has seen the artist at work or the accounts of the artist's statement are preserved properly. Fortunately all the early works of Indian paintings are not destroyed, and fortunately all the early literatures and *śilpa* texts are not lost. A certain percentage still survives to serve as the basis of our enquiry. The *Viṣṇu-dharmottara*, the *Samarāṅgaṇa Sūtradhāra*, the *Mānasollāsa*, the *Śilparatna* and other *śilpa* texts provide a wealth of information of the various techniques of Indian painting. The method of preparing the ground for mural painting, for example, occurs in the *Viṣṇu-*

dharmottara, part III, ch. 40, verses 1—9 ; in the *Samarāṅgaṇa Sūtradhāra*, ch. 72, verses 13—35, and ch. 73, verses 1—12 ; in the *Mānasollāsa*, vol. II, ch. I, verses 137—140 ; in the *Śilparatna*, part I, ch. 46, verses 15—24 and 28 to 34 ; and in the *Sudhālepavidhāna*, verses 1—9. From the description of the texts taken together it appears that two methods of wall painting, tempera and fresco-secco, and three types of ground-preparations, such as mud-plaster ground, lime-plaster ground and gypsum-finished ground, are prescribed in them. Apart from these, they also suggest how the plasters are to be applied layer on layer and washed with water or liquid substances (obtained from different trees) in between the layers.^{3a} But these are often noted in the form of *sūtras*, and therefore need clarification and explanation by those who know the technique.

Not only the preparation of the ground, preparation of the brushes^{3b}, colours^{3c}, media^{3d}, etc. by the artists of ancient India are also preserved in detail in our *śilpa* texts. But what is more significant is that the *śilpa* texts also include the manner of treatment of a painting along with the purpose and idea connected with each stage of the work, since 'nothing is left to chance in this art which', says Kramrisch, 'is completely aware of its means and purpose...Each subject has its proper place,...each place its meaning, ...and each figure its function'⁴. The different poses, stances, flexions and *mudrās* are the vital stock-in-trade in Indian art, and are never used without a meaning.

If Indian paintings of different ages are displayed, even a casual visitor would note that they do not appear as exact representations of nature ; their figures, colours, perspective, light and shade—everything would appear to be unreal and logically incoherent. And a person with a scientific bent of mind may be misled by these in appreciating the works properly, unless he is already aware of the Indian artist's approach to art. The objective of Indian art, as understood from the actual specimens of work and textual references, is to 'express only the essential, to improve rather than to copy nature exactly'⁵. Even when he draws a portrait he never makes a mere replica of a man's outward appearance, he produces something corresponding to such essential image of a man as is reflected on the mental canvas of the artist. That the delineation of forms in a work of art should be from conception or intuitive vision or realization in the mind, is a peculiar characteristic of Indian art and it is clearly stated on several occasions in our *śilpa* texts,

The *Viṣṇudharmottara* (a *śilpa* text of the 6th century A.D.) for example, mentions :

*sammukhattivamathaitesām citre yatnād vivarjayet*⁶

[Close or realistic study (of any object) should be carefully avoided in a painting]; and the *Śilparatna* enjoins :

*evam svasocitaṁ sthānaṁ manasā niścitya buddhimān ||
likheccitragataṁ bhāvaṁ tathā vyāpārameva ca* |⁷

[An artist after deciding in his mind upon the proper pose (and space) according to the mood and action, should go to paint.]

This conceptual character has given Indian painting a special leaning towards the expression of inner similitude, inner reality and inner spirit. This inner spirit or life-movement or *cetanā* considered as one of the basic qualities of a painting, is referred to in the *Viṣṇudharmottara* in an indirect way, through some examples ; for instance, the text in its ch. 43, verse no. 29a, mentions that he is expert in painting who can distinguish (in a painting) between a sleeping man with life and a dead without it (*suptaṁ ca cetanāyuktaṁ mṛtaṁ chaitanyavarjitam*).

The creative process which is imaginative and conceptualistic has hardly any scope to show natural light, natural colour and natural perspective. So whenever an Indian painter uses shading in his work, he uses it without aiming at indicating any sense of directed light or outer source of light or cast shadow. His purpose of using shade is to show only the elevation and depression of forms, and the method of achieving this effect is clearly stated in the following lines of the *Mānasollāsa* :⁸

*ujjvalaṁ pronnata sthāne śyāmaṁ nimnadeśataḥ ||
ekavarṇe'pi tat kuryāt tāratamya vibhedataḥ* |

That is, 'use bright (colour) for raised parts and dark for receding areas ; in a monochrome painting too, this should be done by creating tonal variations.'

The colours which are to be selected and applied in a painting, whether to create pictorial relief or contrast, are specially significant, for they are used with a specific meaning or purpose. The *Viṣṇudharmottara*, for example, enjoins :⁹

*pūrvam raṅgavibhāgena bhāvakaḥ pañayā tathā |
subudhayā kārayedraṅgaṁ..... ||*

That is, first the colours are to be selected according to the mood

and vision and then the artist should make use of them applying his sense and intellect.

Line and decorative quality are also said to be the *bhūṣaṇas* or ornaments of a painting :

rekḥā ca vartanā chaiva bhūṣaṇaṁ varṇameva ca |
*vijñeyā manuṣaśreṣṭha citrakarmasu bhūṣaṇam ||*¹⁰

The importance of line in Indian painting is given on technical as well as on aesthetic reasons. Most of the Indian paintings are executed in tempera. The colour-quality of tempera is such that it demands precise and definite lines to define the forms, particularly when they are mentally conceived. So the line element is always given prime importance, and its merit is upheld in our *śilpa* texts which opine that a painting becomes excellent (*atīva citra*) if it is finished with satisfactory lines which should be soft (*susnigdha*), clear (*vispaṣṭa*) and unfaltering (*ajihṇa*).¹¹ The form, thus, being defined by lines, gets a rhythmic quality as the lines move to follow the forms and their movements.

The technique and treatment of painting, as discussed above, are practically inseparable from each other ; one is never valid without the other. But the know-how of technique and the manner of treatment are certainly not all, and certainly not the *rason d'etre* of a work of art. The painter brings into play all his knowledge and technical skill in his work so that his particular vision may emerge from it, and the work as a whole be, above all, aesthetically satisfying, i.e., *rasottīrṇa*, which according to Indian aesthetics is the goal of all art. And what makes a painting successful or *rasottīrṇa* is also indicated in the following expression of the *Śilparatna*¹² :

nānāvarṇānvitam ramyaṁ na nyūnaṁ nādhikaṁ kvacit ||
tatra tatrocitrākārasabhāvakriyānvitam |

[(A successful painting is) painted with numerous colours which are pleasing and neither less nor more (i.e., appropriate) and are so arranged as would be appropriate to the feeling, action and sentiment].

From the few examples cited above, we may easily conclude that no proper or critical study of Indian painting is possible without studying the Sanskrit texts and literature which provide the basic material and information—technical as well as aesthetic—throwing light on and giving indication of what could not be guessed and understood.

Notes

1. Sudha Bose, *Śilpāchārya Abanīndranāth*, Calcutta 1975, pp. 344-345.
2. W. Archer, *India and Modern Art*, London, 1959, p. 20.
3. *Samarāṅgaṇa Sūtradhāra*. Ch. 71, verses 14-15,
V. S. Agrawala (ed.), Gaekwad's Oriental Series No. 25, Baroda, 1966.
- 3a. Cf., J. Chakrabarti, *Techniques in Indian Mural Painting*, Calcutta, 1980,
p. 26.
- 3b. *Ibid.*, cf., pp. 69-72
- 3c. *Ibid.*, cf., pp. 37-59.
- 3d. *Ibid.*, cf., pp. 58-67.
4. St. Kramrisch, *The Art of India*, Phaidon Press, London, 1955, p. 43.
5. B. Rowland, *The Art and Architecture of India*, U.S.A., 1959, p. 5.
6. *Viṣṇudharmottara-Purāṇa*, Third Khanda, Vol. I (text), ch. 43, verse 30b,
Priyabala Shah (ed.), Gaekwad's Oriental Series No. CXXX, Baroda, 1958.
7. *Śilparatna*, Part I, ch. 46, verses 110b—111a, T. Ganapati Sastri (ed.),
Trivandrum Sans. Series No. LXXV, 1922.
8. *Avilasitārtha cintāmaṇi* or *Mānasollāsa*, Vol. II, ch. I, verses 153b-154a,
G. K. Shrigondekar (ed.), Gaekwad's Oriental Series No. LXXXIV, Baroda,
1939.
9. *Viṣṇudharmottara*, part III, ch. 40, verse 17.
10. *Ibid.*, cf., ch. 41, verse 10.
11. *Ibid.*, cf., ch. 41, verse 15.
12. *Śilparatna*, part I, ch. 46, verses 11b-12a.

*ON THE NATIVE METHOD OF MAKING THE PAPER, DENOMINATED IN HINDUSTAN, NIPALESE

B. H. HODGSON

For the manufacture of the Nipalese paper the following implements are necessary, but a very rude construction of them suffices for the end in view.

1st. A stone mortar, of shallow and wide cavity, or a large block of stone, slightly but smoothly excavated.

2nd. A mallet or pestle of hard wood, such as oak, and in size proportioned to the mortar, and to the quantity of boiled rind of the paper plant which it is desired to pound into pulp.

3rd. A basket of close wicker work, to put the ashes in, and through which water will pass only drop by drop.

4th. An earthen vessel or receiver, to receive the juice of the ashes after they have been watered.

5th. A metallic open-mouthed pot, to boil the rind of the plant in. It may be of iron, or copper, or brass, indifferently ; an earthen one would hardly bear the requisite degree of fire.

6th. A sieve, the reticulation of the bottom of which is wide and open, so as to let all the pulp pass through it, save only the lumpy parts of it.

7th. A frame, with stout wooden sides, so that it will float well in water, and with a bottom of cloth, only so porous that the meshes of it will stay all the pulp, even when dilated and diffused in water ; but will let the water pass off, when the frame is raised out of the cistern ; the operator must also have the command of a cistern of clear water, plenty of fire-wood, ashes of oak, (though I fancy other ashes might answer as well,) a fire place, however rude, and lastly, quant. sufficit of slips of the inner bark of the paper tree, such as is peeled off the plant by the paper makers, who commonly use the peelings when *fresh* from the plant ; but that is not indispensable. With these "appliances and means to boot," suppose you take four seers of ashes of oak, put them into the basket above-mentioned,

place the earthen receiver or vessel beneath the basket, and then gradually pour five seers of clear water upon the ashes, and let the water drip slowly through the ashes and fall into the receiver. This juice of ashes must be strong, of a dark bark-like red colour, and in quantity about 2 lbs. ; and if the first filtering yield not such a produce, pass the juice through the ashes a second time. Next, pour this extract of ashes into the metal pot, already described, and boil the extract ; and so soon as it begins to boil, throw into it as many slips or peelings of the inner bark of the paper plant as you can easily grasp, each slip being about a cubit long, and an inch wide ; (in fact the quantity of the slips of bark should be to the quantity of juice of ashes, such that the former shall float freely in the latter, and that the juice shall not be absorbed and evaporated with less than half an hour's boiling.) Boil the slips for about half an hour, at the expiration of which time, the juice will be nearly absorbed, and the slips quite soft. Then take the softened slips and put them into the stone mortar, and beat them with the oaken mallet, till they are reduced to a homogeneous or uniform pulp, like so much dough. Take this pulp, put it into any wide-mouthed vessel, add a little pure water to it, and churn it with a wooden instrument like a chocolate mill for ten minutes, or until it loses all stringiness, and will spread itself out when shaken about under water. Next, take as much of this prepared pulp as will cover your paper frame, (with a thicker or thinner coat according to the strength of the paper you need,) toss it into such a sieve as I have described, and lay the sieve upon the paper frame, and let both sieve and frame float in the cistern : agitate them, and the pulp will spread itself over the sieve ; the grosser and knotty parts of the pulp will remain in the sieve, but all the rest of it with ooze through into the frame. Then put away the sieve, and taking the frame in your left hand, as it floats on the water, shake the water and pulp smartly with your right hand, and the pulp will readily diffuse itself in an uniform manner over the bottom of the frame. When it is thus properly diffused, raise the frame out of the water, easing off the water in such a manner that the uniformity of the pulp spread, shall continue after the frame is clear of the water, *and the paper is made.*

To dry it, the frame is set endwise, near a large fire ; and so soon as it is dry, the sheet is peeled off the bottom of the frame and folded up. When (which is seldom the case) it is deemed needful to

smooth and polish the surface of the paper, the dry sheets are laid on wooden boards and rubbed, with the convex entire side of the conchshell ; or, in case of the sheets of paper being large, with the flat surface of a large rubber of hard smooth-grained wool ; no sort of size is ever needed or applied, to prevent the ink from running. It would probably surprise the paper-makers of England, to hear that the *Kachâr* Bhoteahs can make up this paper into fine smooth sheets of *several yards square*. This paper may be purchased at Katmandu in almost any quantity, at the price of 17 annas sicca per *dharni* of three seers : and the bricks of dried pulp may be had* at the same place, for from 8 to 10 annas sicca per *dharni*. Though called Nipalese, the paper is not in fact made in Nepal proper. It is manufactured exclusively in Cis-Himalayan Bhote, and by the race of Bhoteahs denominated (in their own tongue) *Rangbo*, in contradistinction to the Trans-Himalayan Bhoteahs, whose vernacular name is *Sokhpo*†. The *Rangbo* or Cis-Himalayan Bhoteahs are divided into several tribes, (such as *Múrmi*, *Lapcha*, &c. &c.) who do not generally intermarry, and who speak dialects of the Bhote or Tibet language so diverse, that, ignorant as they are, several of them cannot effectually communicate together. They are all somewhat ruder, darker, and smaller, than the *Sokhpos* or Trans-Himalayan Bhoteahs, by whom they are all alike held in slight esteem, though most evidently *essentially* one and the same with themselves in race and in language, as well as in religion.

To return to our paper-making,—most of the Cis-Himalayan Bhoteahs, east of the Kali river, make the Nipalese paper ; but the greatest part of it is manufactured in the tract above Nepal proper, and the best market for it is afforded by the Nipalese people, and hence probably it derived its name ; a great quantity is annually made and exported southwards, to Nepal and Hindústan, and northwards, to *Sakya-Gúmba*, *Digarchi*, and other places in Tramontane Bhote. The manufactories are mere sheds, established in the midst

* The pulp is dried and made up into the shape of bricks or tiles, for the convenience of transport. In this form it is admirably adapted for transmission to England. See the P. S.

† The Newer language has terms precisely equivalent to these ; the *Rangbo* being called, in Newary, *Paloo Sén* ; and the *Sokhpo*, *Thá-Sén*. The *Sokhpo* here spoken of is not really a different word from *Soghpúr-nomade*, the name ordinarily applied in Bhote to the Mongols. But this word has at least a different sense in the mouths of the Tibetans towards *this* frontier, on both sides of the Snows.

of the immense forest of Cis-Himalayan Bhote, which afford to the paper-makers an inexhaustible supply, on the very spot, of the fire-wood and ashes, which they consume so largely : abundance of clear water (another requisite) is likewise procurable every where in the same region. I cannot learn by whom or when the valuable properties of the paper plant were discovered ; but the Nipalese say that any of their books now existent, which is made of Palmira leaves may be safely pronounced, on that account, to be 500 years old : whence we may perhaps infer that the paper manufacture was founded about that time. I conjecture that the art of paper making was got by the Cis-Himalayan Bhoteahs, viâ Shassa, from China. A paper of the very same sort being manufactured at Shassa ; and most of the useful arts of these regions having flowed upon them, through Tibet, from China ; and not from Hindûstan.

Nepal Residency, Nov. 1831.

P. S.—Dr. Wallich having fully described the paper *plant*, it would be superfluous to say a word about it. The *raw produce* or pulp (beat up into bricks) has been sent to England, and declared by the ablest persons to be of unrivalled excellence, as a material for the manufacture of that sort of paper upon which proof-engravings are taken off. The *manufactured produce* of *Nepal* is for office records incomparably better than any Indian paper, being as strong and durable as leather almost, and quite smooth enough to write on. It has been adopted in one or two offices in the plains, and ought to be generally substituted for the flimsy friable material to which we commit all our records.

*EXAMINATION OF MINERALS FROM AVA

J. PRINSEP

Major H. Burney has favored us with a further supply of Minerals from Ava, proving that country to be as promising a field for varieties of the earthy minerals as it has already turned out in prolific metallic ores : among the present series may be enumerated ;

1.—*Asbestos*, from the crevice of a rock among the hills of *Tsagain* ; fine silky white Amianthus, crystallized on *silicious delomite*, as it may be called from its behaviour with tests : the colour of the latter is greyish white, with greenish yellow imbedded nodules : before the blow-pipe it is unalterable, but it hardens so as to scratch glass easily : it effervesces strongly with nitric acid, and leaves a silicious residue : the solution lets fall a small precipitate with sulphate of soda, and a more copious one with ammonia and phosphate of soda.

2.—Small hexagonal plates of *Mica* ; splitting into thin plates of a dark brown colour : non-elastic : heated on charcoal, they assume a golden colour from the separation of the plates : with a stronger heat they fuse into a black enamel : resembles Häuy's *Mica Annulaire*.

3.—Crystallized and anhydrous *Gypsum*.

4.—Dark green prismatic *Hornblende* ; obliquely hexahedral, with rhomboidal cleavage :—fuses with difficulty into a black enamel.

Metallic Minerals

5.—*Quartzy Malachite* ; of a light green colour : by digestion in boiling nitric acid this mineral yielded $18\frac{1}{2}$ per cent. of oxide of copper.

6.—*Black oxide of Manganese* ; fracture dark grey granular earthy : exterior surface shining black and mammellated ; with borax, in the blowpipe flame gave a peuce coloured glass discriminative of manganese.

7.—*Pisiform oxide of Iron*—in dark brown balls of the size of peas : exhibiting a stellated structure on fracture : before the blow-pipe, and cupellated with lead, proved to be almost entirely composed of red oxide of iron.

8.—*Argentiferous Galena*—from a newly discovered mine near Ava : yielded on analysis $\frac{1}{3}$ per cent of silver, with slight contamination of copper and zinc.

9.—Crystallized oxide of Lead or *Litharge*.—This mineral is believed to be new, at least it is not described in any catalogue of the ores of lead, which have been consulted.

The specimen resembles yellow micaceous schist in general appearance : it is composed of a confused aggregation of micaceous crystals of a pink-yellow colour : the interstices in some places filled with yellow earthy litharge :—and the exterior of the nodule coated with white carbonate of lead.

The analysis was effected by solution in nitric acid and precipitation by sulphate of soda, which yielded 133.5 grs. of sulphate, equivalent to oxide of lead, 99.

Prussiate of potash proved the existence of copper and iron, weighing..... 1.

100

This natural litharge is readily fusible without effervescence, and resembles, in the reddish brown colour it assumes, the vitreous coat which is always remarked upon the *Dain* and *Yowetni* silver cakes from Ava : I had previously occasion to examine the composition of this substance, which I had found to consist of

Oxide of lead,	70.5
Oxide of antimony,	12.2
Oxide of copper,	10.0
Silver, probably entangled in the slag,	6.0
Earthy matter,	1.3
	<hr/> 100.

I at the time concluded, that the Burmese refiners made use of antimony and lead in refining their silver, and that a little of the artificial slag remained attached to the surface of the silver upon its being suddenly cooled before the litharge was entirely worked off. I have been assured, however, that they use a natural ore to produce the peculiar effect remarked; and if so, the mineral now under description must undoubtedly be the substance employed.

It is worthy of remark, that the Burmese assayers judge of the quality of silver by the crystallization of this coat, or rather by the crystallization of the surface of the metal itself under its protection.

A star is the emblem formed upon their standard silver, which consists nearly of the proportion of 1 atom. copper (10.5) to 5 silver (89.5). It would be curious to ascertain whether this crystallization is a concomitant of other definite mixtures of the same metals. The *Kharúbát* silver, containing 5 per cent of copper, exhibits spiral circles of litherge on its surface in lieu of the star.

10.—*Platina Ore.* In addition to our information respecting the locality of the platina ore of Ava, Major H. Burney has favored us through Mr. Swinton, with the following interesting particulars :

"I find that a good deal of the platina ore is brought from some mountain torrents or small streams, which fall into the *Kyendween* river from the westward, near a town called *Kanee* ; and it is collected in a very curious manner, as Mr. Lane is informed, although he hesitates to believe the fact. The horns of a species of wild cow in this country called *T'sain*, perhaps the same as the *Nylgao* of India, have a velvet coat before the animal reaches the age of two or three years : a number of these horns are taken and fixed in the beds of the small streams, and at the close of the rainy season, when the water subsides, a cloth is put down over each horn separately ; and the horns, and cloth as well as a portion of the sand around it, are taken up together. The horns appear to collect around them a good deal of gold dust, which the streams have washed down, and with this dust grains of platina are found mixed.

The Burmese look chiefly for the gold dust, separating and bringing that alone generally to Ava ; and although Mr. Lane has often urged the men who are engaged in this trade to bring at once the whole of what they take up with the horns, he has not yet been able to persuade them to do so. These horns sell sometimes for 12 or 13 ticals a piece, and deer's horns are sometime used instead of them.

The Burmese call platina, *Sheenthan* ; much of this ore is also found with the gold dust collected among the small streams which fall into the *Erawadi*, to the northward, in the direction of Banman."

The same officer also writes, in allusion to a newspaper notice, "I observe that some correspondent in the Calcutta Government Gazette states that *Kanee*, where the platina ore of Ava is found, is not a town, but signifies a mine. *Kanee-myoo*, or town, is well known as a place forming the assignment of the King's aunt and step mother, whom I visited on my first arrival here ; and *Kanee* certainly does not mean a mine in the Burmese language."

ॐ नमो भगवते वासुदेवाय

Handwritten text, likely bleed-through from the reverse side of the page. The text is mostly illegible due to fading and the quality of the scan. Some words like "Handwritten" and "Handwritten" are visible.

1. The first part of the document is a list of names and their corresponding addresses. The names are written in a cursive script, and the addresses are written in a more formal, printed script. The list is organized into two columns, with names on the left and addresses on the right.

2. The second part of the document is a list of names and their corresponding addresses. The names are written in a cursive script, and the addresses are written in a more formal, printed script. The list is organized into two columns, with names on the left and addresses on the right.

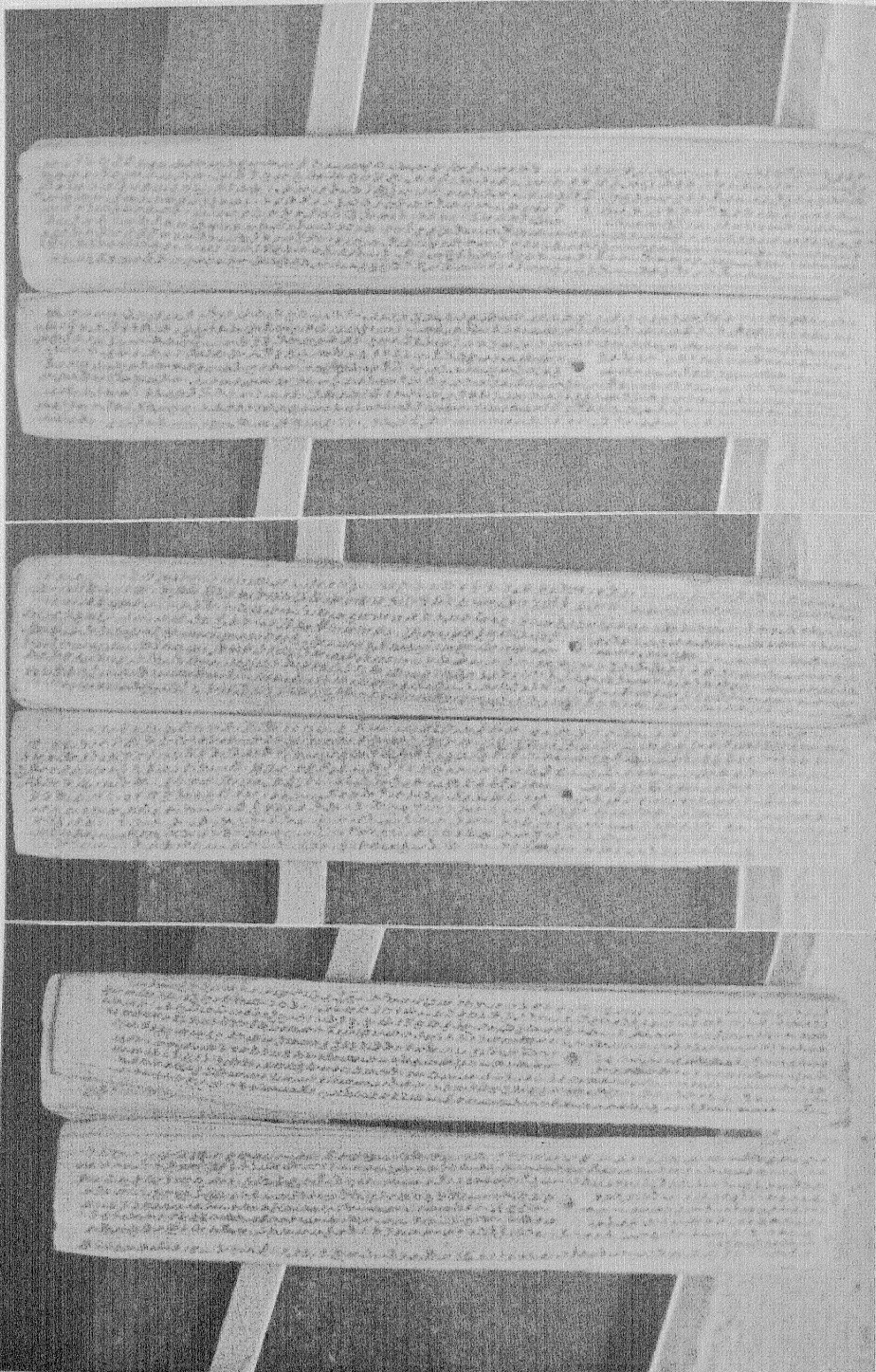
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[Faint, illegible handwritten text]

1. 凡在本行开立存款账户的存款人，均可向本行申请开立支票。



COMMUNICATION—I

B. N. MUKHERJEE

(i) AN INSCRIBED PESTLE

The British Museum, London, has in its collection a few clay pestles bearing inscriptions in the Kharoshthi (or rather Kharoshṭi) script (B. N. Mukherjee, "A Note on the Name Kharoshṭi", *Journal of the Asiatic Society*, 1981, vol. XXIII, nos. 1-2, pp. 144-146). The accession number of one of these is 1960-11-16, 1. It was found at Kul Dheri in NWFP (now in Pakistan). It was donated to the museum by D. H. Gordon.

The object is made of baked clay and is coated with red slip. Its height is 7.6 cm. Its appearance suggests that it was meant to be used as a pestle.

The pestle bears a Kharoshṭi inscription consisting of four letters. Of these the second, third and fourth can be easily read respectively as *da*, *sa* and *sa*. The developed form of *da* and somewhat developed features of "open-mouthed" *sa* tend to date the inscription to about the 1st or 1st-2nd century A.D.

The first letter is enigmatic. If we ignore the two strokes (one slanting and the other slightly curved) in the upper part of the figure, it looks like the initial form of the vowel *a* (see the Wardak inscription of the year 51 and of the time of Huvishka) (S. Konow, *Corpus Inscriptionum Indicarum-Kharoshṭi Inscriptions with the Exception of those of Aśoka*, Calcutta, 1929, p. 170 and pl. XXXIII). One of the above noted strokes attached to the right side (i.e. proper left side) of the upper portion of the figure looking like *a* can be taken as the sign for medial *e* (A. H. Dani, *Indian Palaeography*, Oxford, 1963, pl. XXIII a). In that case the presence of the second of the two strokes on the same side of the figure looking like *a* can be explained only by assuming that the two strokes were used to express the sound of the long vowel *ai*. In fact, we have already an example of the similar use of two strokes on the same side of a letter. In a Kharoshṭi inscription of 1st-2nd century A.D., found in Pakistan, a stroke (vertical) is attached to the upper portion of the right (proper left) side of the conjunct letter *sta* with subscript *r*; and another stroke (horizontal) is added to the lower portion of that

letter to express the sound *strai* (conjunct letter *st* + subscript *r* + medial *ai* = *strai*) (*JAS*, 1981, vol. XXIII, nos. 1-2, pp. 147-149 and (pl.). The two strokes are seen to have been used in this particular inscription to denote the Medial *ai*.



In our inscription the two strokes are attached to the right side of the figure looking like *a*. We have the evidence of writing initial *i*, *e* and *o* in Kharoshthi by respectively (i) using a stroke-drawn across the letter *a*, (ii) attaching a stroke to the right side of the figure, and (iii) joining a stroke with the left side of the character (A. H. Dani, *loc. cit.*). On the analogy of this evidence, the character consisting of *a* with two strokes attached to its right side (i.e. proper left side) should stand for initial *ai*.

It appears that the known number of vowels used in the Kharoshthi script of the Indian subcontinent is to be considered as five (*a*, *i*, *e*, *ai* and *o*) and not four as accepted hitherto (*a*, *i*, *e* and *o*).

The inscription in question reveals the use of initial *ai* in the Kharoshṭi script. The other Kharoshṭi document, discussed above, attests to the use of medial *ai*.

If the above inferences are acceptable, the inscription under discussion can be read as *Aidasasa* and may be translated as "of Aidasa". The pestle belonged to a person called Aidasa (c.f. *Aitasa*, the name of a sage) (M. Monier-Williams, *A Sanskrit-English Dictionary*, reprint, 1951, p. 233).

As noted above, the significance of this inscription lies in its use of the letter *ai*. From this point of view, its importance in the history of the Kharoshṭi script in the Indian subcontinent can hardly be over estimated.

(ii) HALF UNIT PIECES OF THE FIRST SERIES OF THE COINAGE OF HARIKELA

There are in the collection of Mr. P. Ray of Calcutta a few small silver coins bearing a recumbent bull and the legend *Harikela* on one side and a tripartite symbol on the other. The figures on these coins are not always very neatly executed and sometimes they are blurred due to defect in striking.

The intended shape of five such coins noticed here is round. But, again due to a defect in minting, none of them is truly round. The weight, size and specific gravity of these coins may be recorded as follows.

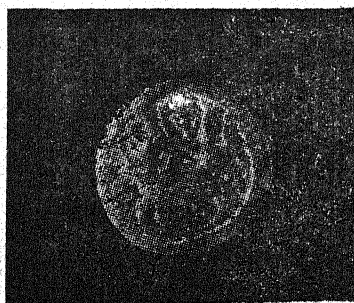
Coin no. 1—wt. 3.2942 gms ; s. 2.5 (2.2) cms ; s.g. 9.8

Coin no. 2—wt. 3.438 gms ; s. 2.55 (2.5) cms ; s.g. 9.5

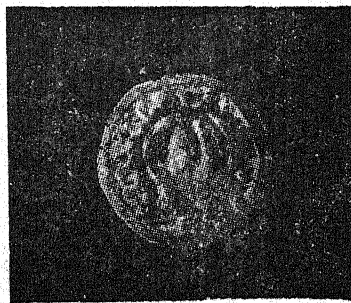
Coin no. 3—wt. 3.2850 gms ; s. 2.2 (2.1) cms ; s.g. 10.19

Coin no. 4—wt. 4.2430 gms ; s. 2.6 (2.5) cms ; s.g. 10.2

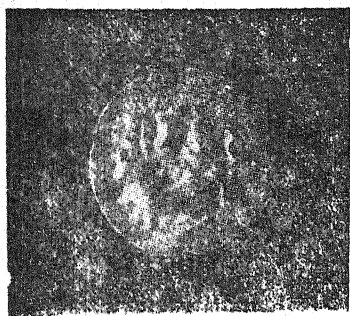
Coin no. 5—wt. 4.2300 gms ; s. 2.4 (2.3) cms ; s.g. 10.1



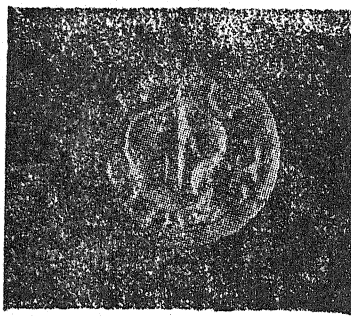
Coin No. 1 Obverse



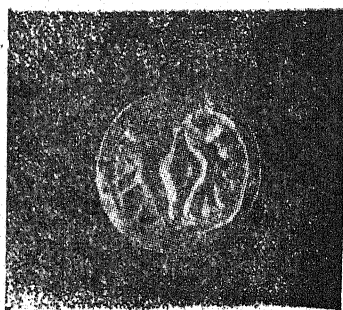
Coin No. 1 Reverse



Coin No. 2 Obverse



Coin No. 2 Reverse



Coin No. 3 Obverse



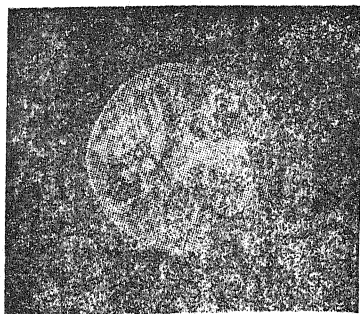
Coin No. 3 Reverse



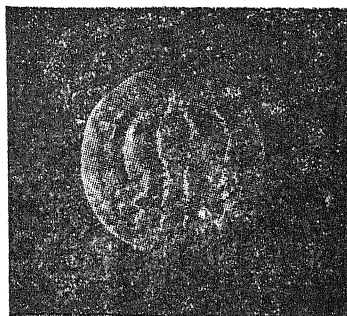
Coin No. 4 Obverse



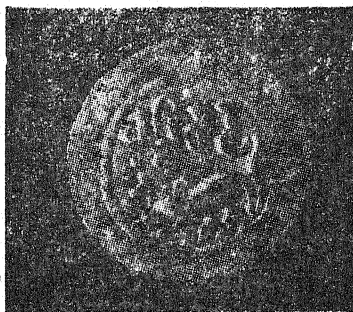
Coin No. 4 Reverse



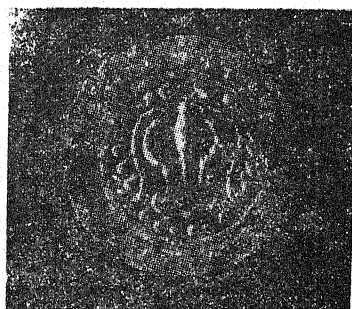
Coin No. 5 Obverse



Coin No. 5 Reverse



Obverse of a full unit coin



Reverse of a full unit coin

The percentage of silver seems to be high in the total content of each of these pieces. The thickness of flan of each of them is about .04-.05 cms.

Typologically these coins can be related to the first series of the Harikela coinage, datable to c. 7th century A.D. (*Journal of the Asiatic Society*, 1976, vol. XVIII, nos. 1-4, pp. 99-101; *Journal of Ancient Indian History*, 1976-77, vol. X, p. 168). Palaeographic features of the legend on the coins concerned may allude to the same period. The purity of silver in the total content of these pieces is quite high as in the cases of the specimens of the first series of the Harikela specie. The thickness of the flans of the latter coins and that of the pieces under review are more or less the same. All

these features may attribute the coins in question to the area and period of circulation of the first series of the Harikela specie.

There are, however, some glaring differences between the fairly well preserved coins under discussion and numerous good specimens of the first series of the Harikela specie weighing more than 7 gms and having their size varying from 2.7 (2.00) to about 3 (3.1) cms. The intended weight of the coins of both the classes could not have been the same. So, if their devices and legend (and its palaeographic traits) assign all the coins in question to the first series of the Harikela specie, then they should be considered to have been pieces conforming to a theoretical weight lower than that of the pieces weighing more than 7 gms. Hence we shall have to infer that coins of the first series of Harikela coins were struck in different denominations or according to the weight of a unit and that of its sub-unit(s).

This inference tallies well with the now well-known fact that the first series of the Harikela specie, was typologically, stylistically and metrologically, based on the coinage of the Chandras of Arakan (JAS, 1976, vol. XVIII, pp. 99-101). The Chandra coins are known in different denominations or rather in a unit and its sub-units (M. Robinson and L. A. Shaw. *The Coins and Bank Notes of Burma*, Manchester, 1980. p. 19 ; M. Mitchiner, *Oriental Coins and their Values, The Ancient and Classical World, 600 B. C.—A.D. 600*, London, 1978, p. 651).

The highest recorded weights of the Chandra coins are 7.6 gms. (*Numismatic Chronicle*, 1960, p. 234) and 7.4 gms. (M. Robinson and L. A. Shaw, *op. cit.*, p. 19). Since both the coins are in reasonably good condition (NC, 1960. p. 234, f.n. 1, and M. Robinson and L. A. Shaw, *op. cit.*, p. 19, fig. 3.21), they probably have not suffered much loss of weight due to natural wear and tear in course of circulation and due to any defect in preparation of blanks. Hence their intended weight could well have been c. 8 gms. Such a hypothesis receives firm support from the fact that several Chandra coins, with their weight varying from 1.8 to 1.93 gms. (M. Robinson and L. A. Shaw. *op. cit.*, p. 19), can be accepted as quarter units if the full unit is considered to have a theoretical weight of c. 8 gms. In that case, the reasonably well-preserved pieces weighing much above 2 gms., but not more than c. 4 gms., can be considered as half units, and those weighing much above 4 gms., but not more than c. 6 gms., may be taken as three quarter units,

It is interesting to note that an Indian Museum coin (no. 73/c. 1008), belonging to the first series of the Harikela specie, weighs 7.5288 gms., while several similar well preserved pieces weigh more than 7 gms. Hence their theoretical weight could be, like the Chandra coins, c. 8 gms. This inference only confirms the well accepted theory that the Harikela specie was metrologically as well as typologically based on the Chandra specie (*JAS*, 1976, vol. XVIII, pp. 99-101).

In the light of this discussion we can consider the coins under review, or at least the first three of them, as half units. Numerous coins of the first series of the Harikela specie, weighing between c. 5 and c. 6 gms., can be taken as three quarter units.

The full theoretical weight of the first series of the Harikela specie seems to have been c. 8 gms. It had sub-units weighing c. 6 gms. and 4 gms. Coins weighing even slightly higher than 4 gms. (say not more than 4.2 to 4.3 gms.) and 6 gms. (say not more than 6.2 to 6.3 gms.) may be taken to have the intended weight as c. 4 and c. 6 gms. respectively. Here the slight overweight may have been due to negligence by the persons concerned and or absence of scientific instruments for measuring correctly the molten metal at the time of casting blanks.

The Harikela specie might have, like the Chandra coinage, also quarter units, weighing c. 2 gms. However, we have not yet come across any piece of that weight.

The existence of sub-units in the first series of the Harikela coinage has already been suspected [see our article in J. P. Singh and N. Ahmed (editors), *Coinage and Economy of North-Eastern States of India*, Varanasi, 1977 (?) p. 17; see also the *Bangladesh Quarterly*, 1981, vol. II, no. 2, p. 12]. This is now proved by the coins noticed here.

These coins as well as other pieces of the first series of the Harikela coinage were struck in Harikela in c. 7th century A.D. In that period the name Harikela denoted a territory including the Chittagong district. In course of time the name was extended to the Comilla and Sylhet districts and parts of Tripura (*Bangladesh Lalitkalā* 1975, vol. 1, no. 2, p. 115f).

3. AN INTERESTING GOLD COIN

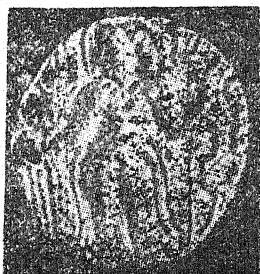
There is an interesting gold coin in the State Museum, Lucknow. Its accession no. is 11626. It can be described as follows :

Metal—gold ; wt.—9.346 gms. ; intended shape—round ; measurement—2(2.1) cms.

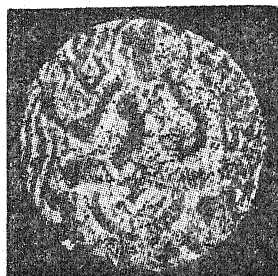
Obverse : King standing to front, with the face turned to his right ; a nimbus behind the head ; the half-raised left hand clasps a part of a bow, while the right hand holds an arrow ; behind the latter a Garuḍa standard can be noticed ; indistinct marginal legend.

Reverse : A goddess (Lakṣmī) sits to front on a lotus ; a nimbus behind her head ; a noose is held by the half-raised left hand ; a symbol in the upper left field ; a fragmentary inscription which can be read (from II O'clock) as *Śr(i) Prak(ā)śa*.

Typologically this coin can be compared with the Archer type coins of the Guptas (A. S. Altekar, *Coinage of the Gupta Empire*, pl. X, no. 2 ; pl. XIV, no. 8 ; pl. XV, nos. 1f). Palaeographically the legend on the reverse can be dated to the Gupta age.



Obverse



Reverse

A king of the Gupta age, if not of the family of the Imperial Guptas, is known to have used the title *Prakāśāditya*. He is known to have struck gold coins displaying a horseman slaying a lion and a fragmentary inscription on the obverse and a seated goddess (Lakṣmī) and the legend *Śrī-Prakāśādityaḥ* on the reverse (*ibid*, p. 285 ; pl. XV, no. 14).

The coin under review, minted by one *Prak(ā)śa...*, can be attributed, as indicated above, to the Gupta age, in which period *Prakāśāditya* of the Horseman-cum-lionslayer type coins flourished. So

the issuer of the both the varieties of specie might well have been one and the same person. In that case the full legend on the reverse of the coin concerned can be reconstructed as *Śrī-Prakāśādityaḥ*. It is interesting to note that both the varieties have identical reverse device.

Prakāśāditya has been variously identified with Pūrugupta (son of Kumāragupta I). Budhagupta (son of Pūrugupta), Bhānugupta (of the Eran inscription of the year 191 G. E.). Tathāgatagupta (mentioned by Hsuan-tsang) and Yaśodharman (of the Aulikara family ?) (For a summary of different views, see *The Journal of the Numismatic Society of India*, 1980, vol. XLII, pp. 123-134). Recently K. S. Shukla has tried to read the name *Bhānugu(pta)* on the obverse of a Horseman-cum-lionslayer type coin of Prakāśāditya (*ibid*, p. 120 ; pl. VI, no. 2). Though the reading is not clear on the published photograph of the coin (*ibid*, pl. VI, no. 2), the suggested identification is not impossible.

A comparative study of the recorded percentage of gold in the metal content of the gold coins of Budhagupta (77%) (157-175 or 180 G. E.), Vainyagupta (73%) (188 G. E.), Narasimhagupta (class I-71% ; class II-54%) and Prakāśāditya (77% ; or 71.9-77.55%) (A. S. Altekar, *op. cit.*, p. 241 ; *JNSI*, 1958, vol. XX, p. 187) tends to place the last noted ruler near about the reigns of Budhagupta and Vainyagupta and before the minting of the coins of class II by Narasimhagupta. This inference may support the dating of Prakāśāditya to about the period of Bhānugupta (191 G. E.).

Whether Prakāśāditya is to be identified with Bhānugupta or not, there is now no doubt that he struck the Archer type as well as the Horseman-cum-lionslayer type coins. This information is revealed for the first time by the coin noticed here. Herein lies its importance.

COMMUNICATION—II

S. N. GHOSAL

1. TAKHTI-BĀHĪ STONE INSCRIPTION OF GONDOPHARNES—YEAR 103.

The inscription with the above title has been studied earlier by eminent scholars. But inspite of their best, efforts some obscurities have obstinately remained. There is a big lacuna in the fifth line, for which no satisfactory emendation has come forward from any source. In the present paper we have made attempts to introduce improvements in interpretation and presented an emendation to fill up the vacant place, caused by the mutilation of the edict. The edict as we obtain from D. C. Sircar, stands as :

1. *maharayasa gudubharasa vaṣa* 20(+ *) 4(+ *) 1(+ *) 1
2. *saṁva(tsarae) tiṣatimae* (1 × *) 100(+ *) 1(+ *) 1(+ *) 1
veśakhasa masasa divase
3. *(praṭhame) (puñe) (va *) (ha)le pakṣe ba(bi)lasamisa bo (go ?)*
yaṇasa
4. *(pari) vara śadhadana sapuyasa keṇamiraboṇasa*
5. *erjhuna kapa * * * * sa puae (1 *) madu—*
6. *pidu puae (11 *) 1*

Sircar suggests the following Sanskrit translation of the edict' *mahārājasya gudubharasya (rājya)varṣe saḍviṁśe 26 saṁvatsarake (ca) triṁśatatamake (= tryadhika)-śatatame 103 vaiśākhasya māśasya divase prathame puṇye vahule pakṣe valasvāmine boyanasya parivārah (prākārah yadvā Kṣudra-vāsagṛhaṁ) śraddhā dānaṁ saputryasya kenamiraboyanasya erjhuna (= kumāra ?) kapa.....sya ca puṣyāy; mātāpitrah puṣyāy (saṁmānanāya).*

It may be stated here that Sircar has translated the expression *tiṣatimae* as *triṣatatamake*¹, which indicates actually the numerical figure *tryadhikaśatatame*. But literally it should go back to Skt. **triṣatimaye* or *triṣatitamake*². But as these are ungrammatical the form should be substituted by *tryadhikaśatatame*, which Sircar has suggested and which is grammatically correct. In the third line Sircar has translated *balasamisa* as Skt. *balasvāmine* and assigned the fourth case-ending to the form. Although in Prākṛit the fourth

case-ending is wanting and its function is done by the genitive, it is unintelligible to us as to why Sircar has assigned the fourth case-ending to the form in his translation. It is worth observing that *boyaṇasa*, which stands in the same case with *balasami* being an adjunct to it, has been allowed to stand in the same very genitive case³.

In the third line the word *bahala* occurs, which evidently stands for *bakule* indicating the sense of "the dark" and as adjective to *pakṣa* "the dark fort-night". So the expressions *vahule pakṣe* conveys the meaning of "in the dark fort-night." The word *parivara* in the edict is not adequately clear. Sircar takes it as "a surrounding wall" (= *prākāra*). He suggests that the word may indicate also a small residential room (*yadvā kṣudravāsagṛham*). It may be pointed out here that the word *parivara* occurs in the Sui Vihar Copper-plate Inscription of Kaṇiṣka I⁴. Here the *Upāsikā* Balanandi-kuṭumbini-Balajayamātā after having put a stick in a sacred place raised a *parivara* above it. Here Sircar took the word *parivara* in the sense of *prākāra* i.e. "an enclosure, a fence, a surrounding wall." In agreement with this in the present inscription too Sircar considers *parivara* as conveying the sense of the "surrounding wall." But so far as we see in the same very Sui-Vihār inscription it is described that the installer of the stick after having put the stick of Nāgadatta in a sacred place gave a cover over it for its protection against the rain and the sun. *imāṃ yaṭhi-pratiṭṭhaṇaṃ ṭhapaicāṃ anu parivaraṃ dadarīm*⁵. In conformity with this in the present inscription too we consider that the word stands for a covering room, an enclosure, which was intended palpably for the same purpose of giving protection to a relic. If this be a fact the word goes close to Sircar's small residential room. However this is immaterial and it does not create any insurmountable obstacle to the understanding of the inscription. This *parivara* was a pious gift of Balasvāmi Boyaṇa for conveying veneration to certain persons. But as the interpretation of Sircar stands we are to think that it is a gift of Boyaṇa to Balasvāmi⁶, which is absolutely improper according to our surmise.

The word *boyaṇa* is the most difficult term in the edict. Sircar has not thrown any light upon it. It appears from his translation that he takes it as a proper name—the donor of the gift. But we have suggested above that it is an adjunct to Balasvāmi. So it cannot indicate a separate person and as such he (Boyaṇa) is not distinct

from the latter (Balasvāmi). According to our surmise the term *boyaṇa* is perhaps a title that proceeds from the man's association with and stay in a particular place⁷. There might be some other reasons too for the origin of the title. This title is borne perhaps by all the persons, who are mentioned in the inscription.'

In the fourth line Sircar takes *sa-puasa* as *saputrasya*, which is an adjective to *Kenamira boyanasa*. But there might be little reason for showing veneration to the son of Kenamira boyana⁸. In this case Kenamira remains an unknown person. So we surmise that this Kenamira Boyana might be his own son (i.e. of Balasvāmi Boyana). Then in that case we are to translate *sapuasa* as *svaputrasya* meaning "of his own son". In such a situation Balasvāmi is found to show veneration to his own son, which might be due to his eminence and superiority. The fifth line is extremely obscure barring its last two words. Sircar informs us that Boyer reads *ejhṣuna* for *erjhuṇa* and thinks it as the name of a prince. Konow considers *erjhuṇa*, which he transcribes with the dental *n* instead of the cerebral one (of Sircar), as a Khotanese word conveying the sense of a Kumāra. It is very difficult to say how far Konow is correct. But the word does not appear to belong to the Aryan stock, which is suggested by its appearance.

There occurs a big lacuna after this term *erjhuṇa*. We find immediately after this term *erjhuṇa* the fragment *kapa* (or *kap-*), after which a long gap appears, that is followed by the syllable *sa*. In other words the line appears as *kapa* (or *kap-*).....*sa*. According to Sircar some eight letters are missing between *pa* and *sa*.⁹ As we learn from Sircar, Konow traces one *śa* or *ṣa* below the letter *pa*. Hence he reads *kap (sha) sa* for the mutilated word ignoring the loss of some more letters, as presumed by Sircar. So he takes *Kapshasa* as the lost term and the same stands for Kadphises I. Now it may be stated here that if we really agree that some eight letters are actually missing between *pa* (or *p-*) and *sa* we cannot accept the restoration of Sten Konow and read the mutilated word as *Kapshasa*, which he has done.

We intend to make a suggestion here, an emendation, which might be taken for consideration. In the lacuna the occurrence of the letters *ka* and *pa* (or *p*) is definite. Konow feels the presence of *śa* or *ṣa* below the letter *pa* or *p*. But *kapshasa* cannot be the intended form as a conjunct-consonant like *psha* or of any other kind has little scope of occurrence in the language of the edicts,

particularly those composed exclusively in Prakrit. However on the basis of this it seems possible for us to presume *kapiśasa* (i.e. *kapshasa* = *kapishasa* by anaptyxis) as the original form. This becomes further changed into *Kapaśisa* by the metathesis of vowels. In this connection we intend to refer to the *Inscription on some gold coins of Wema Kadphises* (c 55-75 A.D)¹⁰, where we find the form *kathphiśasa* (after the reading of Sircar). Rapson reads the latter as *kalpiśasa* but Sircar intends to suggest *kalpiśasa* as the real reading which is in fact identical with *kaḍpiśasa*. Both *kalpiśasa* and *kaḍpiśasa* may appear as *kapiśasa* or *kapaśisa* by assimilation and metathesis of vowels in the latter case. This term (<*kapiśasa*), which we surmise for the lost word, is followed by the term *boyaṇasa*, that appears after both *Balasamisa* and *keṇamira*. These two together i.e. *Kapaśisa* (<*kapiśasa*) and *boyaṇasa* occur in the blank space caused by the mutilation and effacement of the syllables of the fifth line. The number of these syllables, both effaced and surviving, is indeed altogether eight and they occupy more space than *kapshasa*, which was surmised by Sten Konow.

The subject-matter of the inscription is the dedication of a shed over some relic or a fence round it. It is the gift of a Balasvāmi Boyana and he did it for showing veneration to his own son Kenamira Boyana and Kapaśisa Boyana. The edict may be translated like this :

“On the regnal year twenty six of the great king Gadubhara in the Sāmvat era one hundred and three on the first day of the month of Vaiśākha in the auspicious dark fort-night Balasvāmi Boyana made a pious gift of a shed (to cover a relic), which he made for showing veneration to his own son Kenamira Boyana, and Kumāra Kapaśisa Boyana and also for showing reverence to his own parents.¹¹

Notes and References

1. This Sanskrit rendering cannot explain the occurrence of the vowel *i* in the third syllable.
2. The two forms which we show as literal translations do not indicate the figure actually.

3. Sircar thinks that the covering shed or the surrounding wall (parivara) is the gift of Boyana to Balasvāmi. This is surely not the fact. Balasvāmi and Boyana together form the name of a person and he himself is the donor of the gift. So one name should not be split into two.
4. *Select Inscriptions* Book II no 41.
5. See line 3 of the *Sui Bihar Copper-plate Inscription of Kaniṣka I*.
6. This interpretation follows from the use of dat. case in the word Balasvāmi in the translation while the word *boyana* has been retained in the genitive.
7. This is a mere conjecture. The word *boyana* appears to be the title of a name. But the same cannot be explained in any other way.
8. No reason is given in the edict for showing reverence to the son of Kenamira Boyana. If *sapūasa* be not taken as *svaputrasya* even Kenamira remains an unknown person to us.
9. Vide *Select Inscriptions*, 2nd. Ed. Book II. p. 126. foot-note 2.
10. *Select Inscriptions* Book II no 31. See particularly the foot-note. no 7. in the same inscription.
11. We intend to present an explanation for a choosing *kapaśisa* as a part of the emended expressions. We find at the beginning of the gap the two letters *kapa*. These would have been *kap* (ending in a closed syllable) if the sibilant *sh*, put under *p*, would have formed a conjunct with the latter (i.e. *p*). But as there is no certainty regarding the formation of the cluster by *sh* and *p* the letters *kapa* should be read with the final *a*—vowel. We surmise that the two letters constitute a part of the name of Kadphises. In the *Inscription on some gold coins of Kadphises*, Kadphises appears to be represented as *Kathphiśasa*, *Kaḍphiśasa*, *Kalpiśasa*, *Kalpiśasa* etc. In all these variants two sibilants occur successively towards the end. Such arrangement of two sibilants at the end is expected here too. This suggests *kapasasa* or *kapaśasa* as the reading. But the occurrence of the vowel *i* in the above cited forms *kathphiśasa*, *kalpiśasa* etc. suggests the presence of the vowel *i* in this form also. The words *kalpiśasa*, *kaḍphiśasa* etc. become *kapiśasa* in the ordinary Pkt but *kapiśasa* in the inscriptional Prakrit. Here it is *Kapiśasa* due to the presence of the palatal sibilant in the mentioned word in the inscription of Wema Kadphises. This ought to have been the actual form that comes by way of emendation. But owing to the presence of the vowel *a* after *p* in the present inscription before the lacuna we surmise the shifting of the vowel *i* from the second to the third syllable. This is quite possible by the application of vowel-metathesis, which is an admitted linguistic tendency in Prakrit. This leads us to think of *kapaśisa* as the preceding part of the emendation. The other part is constituted by the word *boyaṇasa* that we have exhibited before.

2. THE GENITIVE PLURAL SUFFIX OF THE NUMERICAL BASES IN PRĀKRIT

In Hemacandra's Prākṛit Grammar there occurs a rule (III. 123) according to which the numerical bases in the genitive plural adopt the case-suffix *-ṇha* or *-ṇhaṃ*. The examples, which are provided, are very clear to the point: *doṇha*, *tiṇha*, *caṭṭha*, *pañcaṇha* etc; again there are side by side *daṇhaṃ*, *tiṇhaṃ*, *caṭṭhaṃ*, *pañcaṇhaṃ* etc. The Skt. gen. suffix *nām* is evidently the source of this Prākṛit gen. suffix *-ṇha* or *-ṇhaṃ*, but its transformation is an enigma, which cannot be easily resolved.

Let us see what Pischel has suggested as regards the change of the Sanskrit gen. suffix *-nām* into *-ṇha* or *-ṇhaṃ* in Prākṛit, which is observed in the numerical bases exclusively. It is necessary to point out the fact here that besides *-ṇha* or *-ṇhaṃ* the suffix *-ṇam* was also prevalent in Prākṛit, particularly in the Śaurāśeni dialect and presumably in Māgadhi too¹. Pischel mentions that the forms like *doṇṇam*, *tiṇṇam* etc. can be gleaned from the dramatical works like *Śakuntalā*, *Mālavikāgnimitra*, *Veṇīśaṃhāra* etc. According to Pischel the prevalence of this gen. suffix finds support from Mārkaṇḍeya, whose text is nevertheless late and possesses less value as documents for the real conditions of Prākṛit in its age. Pischel believes in the occurrence of such forms in Pkt. on the evidence of documents in Lena dialected and Pāli too.

Before we consider Pischel's views regarding the origin of the Prākṛit suffix *-ṇha* or *-ṇhaṃ* it is necessary to examine what he states about the origin of *-ṇṇa* or *-ṇṇam*, which is also obtained in the speech as a suffix of the gen. pl. for the very same numerical bases. In section 90 of his *Grammatik* Pischel states that a long vowel before a simple consonant could be shortened and the consonant doubled if the word maintained the accent upon the final syllable². A consonant after a short vowel could also be doubled and from his reference to section 194 of his work the reason may be ascertained to be the occurrence of the same consonant immediately before the accented vowel, which caused the doubling of the preceding consonant³. In *triṇṇām* where the rule becomes applicable the accent occurred on the final vowel *ā*; this caused the doubling

of the consonant *n* and led to the change of the form into *tiṇṇaṃ* in Pkt. ; the word *doṇṇaṃ* is built in analogy with *tiṇṇaṃ*. The latter is also the source of *tiṇṇi* = Skt. *trīṇi*, after whose pattern *doṇṇi*, *biṇṇi* or *beṇṇi* have been built.⁴

As regards the origin of the suffix *-ṇha* or *ṇhaṃ*, which is evidenced in the numerical bases yielding *doṇṇaṃ*, *tiṇṇaṃ* etc. Pischel opines that the contamination of nominal **doṇaṃ* and pronominal **dosāṃ* gives rise to a hypothetical form like **dvausṇām* that results in *doṇṇaṃ* in Pkt⁵. The analogy of the latter might be the cause for the origin of the other forms like *tiṇṇaṃ*, *caūṇṇaṃ*, *pañcaṇṇaṃ* etc. The suffix *-ṇha* develops from *-ṇhaṃ* due to disintegration of the unstable nasal element.

The fore-going remarks of Pischel make us admit the fact that the accent on the vowel *ā* in *-nām* causes the doubling of the consonant *n* resulting in origin of the suffix *-ṇṇa* or *-ṇṇaṃ* in Pkt. There is no gainsaying the fact that *tiṇṇaṃ* gives rise analogically to *doṇṇaṃ*, *caūṇṇaṃ*, *pañcaṇṇaṃ* etc. on the one hand and to *tiṇṇi* on the other, which itself becomes the source for the manifestation of *doṇṇi*, *biṇṇi*, *beṇṇi* etc. But another explanation for the origin of the gen. suffix *-ṇṇa* (also *-ṇṇaṃ*) is quite possible. The gen. pl. form of the numerical base *catur-* both masc. and neut. stands as *caturṇām* in Skt, which in Pkt. could develop into *caūṇṇaṃ* reproducing the suffixal element as *-ṇṇaṃ* (or *-ṇṇa* with the disintegration of the final nasal). This word might be the source of *tiṇṇaṃ*, *doṇṇaṃ*, *pañcaṇṇaṃ*⁶ etc. If this explanation be accepted, this relieves us of the trouble of presuming the working of accent—particularly its role of causing the doubling of the pre-accentual consonant, which is undoubtedly a disputed matter. It may be pointed out here that accent is a very controversial phenomenon and regarding its precise mode of action and influence scholars could not be unanimous in their views.

Let us see to what extent the views of Pischel may be acceptable regarding the origin of the gen. pl. suffix *-ṇha* or *ṇhaṃ*. The assumption of the contamination of nominal *doṇaṃ* and pronominal *dosāṃ* as giving rise to *dvausṇām* leading finally to Pkt. *doṇṇaṃ* appears to be absolutely fantastic to us. There is no evidence to support the phenomenon. We obviously maintain a different view regarding the origin of the gen. suffix *-ṇha*. We believe that the Pkt. gen. pl. suffix *-ṇṇa*, a conjunct of two nasals, in course of

evolution in the later period becomes transformed into *-ṇha*, i.e. a conjunct constituted of a nasal and an aspirate. It appears thus as *ṇha*. The same phenomenon is to be noted in the case of evolution of the conjunct of double liquids i.e. of *ll*. As a consequence of modification it assumes the form *-lh*. So the evolution of *-ṇha* from *-ṇṇa* and *-lha* from *-lla* is a later phenomenon and is to be found in later Pkt., i.e. Apabhraṃśa and its younger representative Avahaṭṭha. But sometimes the later phenomena cast their precursors beforehand. This is the reason for which we find such phonetic developments in Middle Prākṛit, i.e. Śaurasenī, Māhārāṣṭrī and Māghadhī, that are analysed by Hemacandra in his grammar.

We are to produce some evidence in support of our proposition. It is possible to cite evidence confirming our views from the *Prākṛta-paiṅgala*, a text in late Apabhraṃśa, that is assigned to the fourteenth century A.D. In the verse 128 of the *Mātrāvṛtta*⁷ we find the forms *diṇḥaū* (variants C ms. *diṇṇaū* and *liṇṇaū* (wrongly written, the correct form would be *liṇḥaū* or *ṇiṇḥaū*; the variants are: B *ṇiṇḥaū*, C *niṇṇaū*); they stand for Skt. *datta* and *nīta* which in normal Pkt. will be *diṇṇa* and *ṇiṇṇa* respectively. The variants *diṇṇaū* and *ṇiṇṇaū* as maintained by the ms. C, show the earlier forms which preserve the conjuncts of two nasals. But such nasals very easily become transformed into conjuncts of a nasal and an aspirate, as exhibited in the afore-cited forms of the text.

As regards the change of conjuncts of double liquids (dentals) into those of liquids and aspirates, i.e. of *ll* into *lh* the *Prākṛta-paiṅgala* bears the glaring evidence. We may refer to the verse 7 of the *Mātrāvṛtta*⁸, where we find the form *ulhasanta*=Skt. *ullasat* (variant B ms *ullasanta*). It is evident that the text bears the advanced form showing the change, i.e. the conjunct of a liquid and an aspirate (*lh*) as developing from the conjunct of two liquids (*ll*), which is noted in the variant of the B ms. It may be presumed here that such advanced forms were probably abundant in the language of the *Prākṛta-paiṅgala*, but as the latter was immensely influenced by the Māhārāṣṭrī dialect, which had a widely-accepted standard literary form, the phonetically advanced forms could not fully manifest themselves in literature.

According to our assumption such development of a conjunct of a nasal and an aspirate from the cluster of two nasals happened

in the case of the labial nasal (m) too. In other words the conjunct *mm* occasionally developed into *mh*, which took place in the last stage of Pkt., i.e. in Apabhraṃśa, as stated before. In Hemacandra's Pkt. grammar in the verse 6 under the sūtra IV. 395 we find a word *bhumhaḍī*, which corresponds to Skt. *bhūmiḥ*. Evidently the Pkt. form is identical with *bhumhaḍī* and the anusvāra here stands for the class nasal *m*. This presupposes a form like *bhummi* or *bhumma* in the earlier stage retaining a conjunct of two nasals *mm*, which is the immediate source of this Pkt. conjunct *mh*. In the verse 3 under the sūtra IV. 396 we find the word *pamhaṭṭhaū*, which corresponds to Skt. *pramṛṣṭa*. The Ap. form presumably comes from an earlier form **pammatṭhaū*⁹, where the single consonant *m* for some uncertain reasons becomes doubled and forms a cluster like *mm*. This consonant group ultimately becomes developed into *mh*, which we note in the form *pamhaṭṭhaū*. It needs mention here that in the *Prākṛta-paiṅgala* the intervocalic consonant *m* is found to have been doubled once, which might have happened due to the necessity of preserving rhyme, with the first word of a metric foot, that stands before.¹⁰ The word *bhūmi* appears there as *bhūmmi* and paves the way for its transformation into *bhumhi*.

Let us conclude. In the fore-going pages we have made an attempt to find out the source of the gen. case suffix *-ṇha* or *ṇham*, which we find in the numerical bases (i.e. in *doṇham*, *tiṇham*, *caūṇham* etc). We could not accept the explanation of Pischel, according to whom, as we have seen before, the contamination of *doṇam* and *dosam* resulting in the origin of the form *dvausṇām* gave rise to *doṇham* in Pkt. The latter by way of analogy might have produced the gen. pl. form of other numerical bases, i.e. *tiṇha*, *caūṇha*, *pañcaṇha* etc. As we have indicated before, according to Pischel, the other gen. pl. suffix, i.e. *-ṇam*, which stood as an alternative to *-ṇha* or *ṇham* in numerical bases, came into origin owing to the falling of the accent on the vowel *ā* in *-nām*, that led to the doubling of the consonant *ṇ*, producing *tiṇṇam* from *trinām*. Thus analogically are produced *doṇṇam*, *caūṇṇam* etc. But this assumption of Pischel might not have been correct. As we have shown before, the gen. pl. suffix *-ṇam* might have started from *caturṇām* the inflected form of the base *catur-* in the gen. pl., which produced *caūṇṇam* in Pkt. and analogically built *doṇṇa*, *tiṇṇa*, *pañcaṇṇa* etc. Such an assumption relieves

us of the trouble of entering into the intricacies of accent, regarding whose mode of working scholars could never be unanimous.

We have made perspicuous that before the gen. pl. suffix *-ṇha* (or *-ṇam*) proceeds from *-ṇam*, which is evidently earlier. We have shown from the text of the *Prākṛta-paiṅgala* that conjuncts consisted of two nasals and two liquids (dental) occasionally in the last phase of Prākṛit gave rise to the clusters of nasals and aspirates as well as liquids and aspirates respectively. In other words, *ṇṇ* developed into *ṇh* and *ll* into *lh*. We have shown from the text of Hemacandra's *Prākṛit grammar* that *mm* also developed into *mh*. If this proposition be accepted it will not be wrong for us to assume that the gen. pl. suffix *-ṇha* in the numerical bases in Prākṛit develops from the earlier same gen. pl. suffix *-ṇa*, regarding whose origin we have expressed our views in unequivocal terms.

Notes and References

1. Vide Pischel, *Grammatik* sec. 436. "In S. und wahrscheinlich auch Māg., ist die Endung dagegen *-ṇam*, entsprechend den Lena dialekt und Pāli. *doṇṇam* Śak. 56.15, 74.7, 85.15, Venis, 60.16, 62.8, Mālav, v.i. zn 77.20, wie sich auch in M. öfter als v.l. findet und MK. fol. 49 die Handschriften geben".
2. One should note the following statement of Pischel: "Langer vokal ver einfachem Konsonanten wird oft gekürzt und der Konsonant verdoppelt, wenn das Wort ursprünglich auf der letzten Silbe betont war. Die Verdoppelung tritt auch zu-weilen nach ursprünglich kurzem Vocale ein" (sec. 194). In fact doubling occurs according to this rule i.e. due to the falling of the accent upon a vowel necessitating the doubling of the immediately preceding consonant. In the case of the occurrence of a consonant after a long vowel this very rule operates. Only the doubling of the pre-accentual consonant causes the shortening of the long vowel standing before the doubled consonant.
3. One should note the following words of Pischel: "Statt auszufallen, oder, wenn Aspirata, in *h* überzugehen, wird ein Consonant zwischen Vocalen oft verdoppelt, wenn er ursprünglich vor betonten Vocale stand" (sec. 194).
4. This becomes clear from the following words of Pischel "*tiṇṇi* = *trīni* (§ 436) ist nach dem Genetiv *tiṇṇam* = *trīṇam* gebildet und nach *tiṇṇi* hat sich gerichtet *donṇi*, *benni*, *biṇṇi* = *dvāu*, *dve*, wie *doṇṇam* nach *tiṇṇam*" (sec. 91). But it should here be admitted that the form *trīṇam* is

ungrammatical. At least Pāṇini does not recognise it. The numerical base *tri* in gen. pl. masc. and neut. shows *trayāṇām*, while the fem. base has *tiṣṭhāṇām*. So this conception of *triṇām* as source of *tiṇām* does not stand on any solid ground. Yet the assumption cannot be outright ruled out as wrong.

5. Pischel has stated it in clear words : "Während *donṇām* der Analogie von *tiṇām*=*triṇām* gefolgt ist, scheint die Endung *-ṇām* aus einer Vermischung der nominal form *donām* und der pronominal *dosām* entstanden zu sein, da sie ein *dvaṣṇām* voraussetzt".
6. The word *caturṇām* can quite logically develop into *caṇṇām*. Perhaps the accent on the initial syllable has caused the shortening of the long vowel in the final syllable. In the case of *triṇām* one must be in difficulty in explaining the shortening of the long vowel *ā*, since it retained the accent. So Pischel's assumption of *tiṇām* as developing from *triṇām* is involved with a difficulty. Besides, as stated before, the word *triṇām* is ungrammatical. At least Pāṇini is ignorant of this form.
7. The verse, as we find in the Asiatic Society ed., stands as :
jahi āsāvare desā dīṇhāi sūthira dāhara rajjā lihṇāi |
kālāṇjara jīṇi kitthi thappia dhaṇuā vajjia dhammaka appia //
8. The verse in the As. soc. ed. stands as :
cau sahaja tuṇṇu caṇṇalā sundari hradahi valaṇṭa |
paa uṇa ghallasi khullaṇā kilasi uṇa ulhasanta //
9. The word Skt. *pramṛṣṭa* will normally develop into *pamaṭṭha* in Prakrit. Here the doubling of *ma* in the second syllable is absolutely based upon conjecture. But this must have happened, otherwise it is not possible to explain the development of *mh* in the form *pamhaṭṭhāi*.
10. One should note the line

kaṇṇa calāi kumma lalāi bhummi bharāi kittie |

Here one should observe that in the word *bhummi* an attempt has been made to preserve rhyme with the first word in each moric foot which retains a conjunct consonant of two nasals in the final syllable i.e. *ṇṇa* in *kaṇṇa*, *mm* in *kumma* ; so analogically *m* in *bhūmi* is made *bhummi* with the concomitant shortening of the preceding vowel.

ĀCĀRYAVANDANĀ—D. R. BHANDARKAR
BIRTH CENTENARY VOLUME

S. N. GHOSAL

The D. R. Bhandarkar Birth centenary volume, which has been given the title *Ācārya-vandanā*, appears as a part of the performance of the centenary celebration of the scholar by its organisers comprising mostly his students and admirers. The volume contains two parts. In the first part we find four sections, which are namely : (1) Academic career and contributions of D. R. Bhandarkar, (2) Reminiscences and tributes, (3) Bibliography of the published writings of D. R. Bhandarkar and (4) A detailed account of the centenary celebrations done by the organisers and other participants. The second part contains 35 Indological papers, which are contributed by some of his students and also by some noted scholars of the present time.

The first part appears highly interesting to us as it has given us a very vivid account of the scholar, whom Sir Asutosh brought from Mahārāṣṭra to build up the Calcutta University at the initial stage of its formation and who fully and in fact very successfully discharged the task that was imposed upon him. This section and also the third provide us with an information about the different branches of knowledge and subjects, which Prof. Bhandarkar read, acquired and cultivated. In fact he has waded through all the different aspects of the ancient Indian history and culture, which are interrelated. Being the son of a very illustrious father he in fact inherited from him a great thirst for knowledge, a keen interest in all antiquarian matters and a profound zeal for probing deep into the heart of the things. In fact before passing the M.A. examination he prepared some research papers, where his intellect was to exhibit the efflorescence of his talents in the future. He studied all the branches of early Indian history and left marks of originality in his researches upon these subjects. There is hardly any other scholar who could acquire deep knowledge of so many subjects as he. He started with ethnology but gradually showed proficiency in epigraphy, numismatics, social history, political history, anthropology

and art and architecture. He in fact became an institution by himself that left permanent impress upon the scholastic world and particularly the students of Ancient Indian History and Culture who came in close contact with him. As we learn from the volume great historicans like Dr. R. C. Mazumdar and Dr. D. C. Sircar ungrudgingly admitted his scholarship and were full of praise for him. In many of these fields he was the pioneer worker and paved the way for the progress and advancement of the followers. Prof. Mazumdar specially mentions his editions of some twenty inscriptions, which appeared in the different numbers of the *Epigraphica Indica*. He also mentions in this connection his edition of the Vol. CXLV of the *Annals of the American Academy of Political and Social Sciences* (1929), which he ably did after receiving an invitation from America. According to Prof. Mazumdar Bhandarkar's Lectures on Social history, Numismatics and other allied subjects, which he delivered at different times in Calcutta and Benares, are also evidences to his profound scholarship and very critical acumen. Bhandarkar's Lectures on Aśoka is also a sound work and it is still considered a pioneer work in the field.

D. C. Sircar has also mentioned all these works as bearing testimony to his uncommon knowledge and profound scholarship. He refers also to some of his papers, which are nevertheless fit to be mentioned in this connection as these bear the unmistakable stamp of his original thinking, penetrating insight and masterly learning. One of these papers contains a study of the "*History of the Marwar Cāhamanas*" (Ep. Ind. XI 26-79). He mentions also the *Mahāsthān Inscription* of 300 B.C. and *Mathura Pillar Inscription of the time of Candragupta II* (380-81 A.D.). The last-mentioned paper is highly important as it stands as a source for the study of the origin of Śaivism in the country. According to Dr. Sircar Bhandarkar's researches on numismatics are extremely valuable for they provide scope for reconstructing the history of the Indo-Bactrian Greeks, Indo-Scythians, Indo-Parthians and the Kuśāna kings, who overshadowed North India between 250 B.C. and 300 A.D. The coins, it may be mentioned, are the principal sources for the knowledge of the history of this period when hords of intruders thrust themselves into India from outside and left the vestiges of their sway over this land.

What has appeared very striking to us is Bhandarkar's devotion to duty and his utmost exertion for disseminating knowledge of his

subjects to his students. He maintained a very good library in his residence and allowed his students to utilise it in any part of the day. The students used to come there from early in the morning and spent the entire day there in their pursuit of research-activities. They consulted him whenever they felt the necessity to seek his advice. He made himself accessible to them at any time. He occasionally entertained them with tea and snacks. He trained by this way many eminent scholars of Bengal. Dr. Niharranjan Roy, Dr. D. C. Sircar and many others built themselves under the direct guidance of Bhandarkar. This has in fact built the Calcutta School of orientalist, which would not have surely gained such popularity had Bhandarkar not ungrudgingly laid open opportunities to the students of the Calcutta University. The eminence of the department of the Ancient Indian History and Culture of the Calcutta University is due mainly to the selfless service and magnanimity of Dr. D. R. Bhandarkar, who considered the entire India as his home and not Mahārāṣṭra or a particular district of it.

The section 2 of the first part bearing the title "Reminiscences and tributes" has appeared most interesting to us. These short sketches from his past colleagues and students have revealed the real character of the man, his personality, his conduct, his devotion to work and dedication to the service of mankind. He was a very dutiful man. He loved his students like his own children and he liked to be amidst them. This is perhaps the reason for which he kept his door open and accessible to the students. He inculcated in them a deep craving for knowledge and generated in them the spirit to unravel the mysteries of the world, in which they wanted to make investigations. In fact the very technic and mode of his teaching kindled the spirit of research in the students. The students could not feel how the long hours in which they listened to the lessons, imparted by the teacher, passed so quickly. This is in fact the greatest virtue of a teacher, who inspires and stirs up the latent potentialities of a student. Bhandarkar achieved this art and this ensured a permanent place for him in the hearts of his students, who still cherish his memory with utmost devotion and love.

Bhandarkar was a charming personality. He was gentle and sweet in temperament. He was never rude to any body even to his most bitter critics. He very lightly took the adverse comments and remarks of his rivals, which he counteracted very jokingly. He had the magnanimity to admit his own mistake and correct himself

accordingly. He had a strong sense of humour, with which he could make light even a very grave and tense situation. He was very decent in his habits and conduct and he meticulously maintained this decency throughout his life. We have already mentioned before that he loved his students very much. He took interest in their activities. He always helped them whenever they had approached him with some request. He always tried to establish them in life and provide them with employment. He maintained contact with them and in fact felt proud in their successes. His kind behaviour endeared him to his students, who loved and respected him like their own parents. He lived a saintly life and by his uncommon qualities he resembled the ancient Rishis, whom we find delineated in our religious texts.

Bhandarkar possessed an unusual talent and sharpness of intellect. By this alone, it is undeniable, he could not have surely succeeded in achieving his eminence had he not worked hard and utilised every moment of his life for the fulfilment of his mission. By dint of hard labour he fully established himself in life and became the recipient of highest honour and glory. Like Sir C. V. Raman, Sri Sarvapalli Radhakrishnan, Mm. Sitaram Sastri and Mm. Anantakrishna Sastri he is a discovery and rare find of Sir Asutosh, who brought him from Mahārāṣṭra to train up the students of his university and to make the Department of Indian History a centre of higher study and research. Bhandarkar completely fulfilled the expectations of Sir Asutosh and Sir Gurudas who initially resented the appointment of Bhandarkar by Sir Asutosh later frankly admitted this.

The second part of the centenary volume is a collection of thirty-five papers, which are contributed by eminent scholars of the country, some of whom are the formerly students of Bhandarkar. A number of foreign scholars have also sent their papers by way of paying tributes to the great orientalist. Most of these papers have been prepared on subjects which are also the subjects of special study by Bhandarkar. Most of these are highly technical and they leave little scope for discussion within such a limited extent as that of a review. In fact these can be properly assessed only by the specialists in the subjects. However we choose a few of them and pass our observations on them.

In the paper "Two Vidisha Sealings" by K. D. Bajpai the interpretation of the inscription of the second sealing, as suggested by

the author, has appeared improper to us. The inscription stands as : *Śrī-viśāla-kūpa-saulkikānām*. Bajpai translates it as : "Of the custom-officers (stationed near) the big well (at Vidisha)." Here the author comments : "The inscription indicates that the sealing belonged to the office of the tax-collectors, located near a well-known big well which was probably in the outskirts of ancient Vidisha which was a great trade-centre" (Vol. p. 138). We cannot accept the interpretation to be correct. The word *viśāla-kūpa* is a compounded word. It is a bahuvrīhi compound. It is expounded as : *viśālaḥ kūpaḥ yasmin saḥ*. It indicates a place where there occurred some big well. The well is just the indication of the place. By the *Lakṣaṇā-vṛtti* too the word *viśālakūpa* may indicate a place where a big well occurred. So we intend to translate the line as : "Of the custom-officers who are stationed in a place, where there occurred a big well." The place might be somewhere close to Vidisha.

We intend to mention here the paper : "A Brāhmī Inscription from the Rewa Region" (p. 366) by P. R. Srinivasam. The inscription occurs as : *Sivānadipranatikena Sivadatānatikena Sivamītaputena vachena Mogaliputena Mula[khaṁ]vena amacena silāgahā kārītā*. The author translates the inscription as : "The stone house was caused to be made by the minister mula(khaṁ)va a vatsa who was the son of Mogali and Sivamīta, the grandson of Sivadata and the great-grandson of Sivānadi." In the foot-note the author makes the observation : "Mogaliputa may mean 'son of i.e. hailing from Mogali, a place. cf. *Imtavhia putra* in Taxila Silver Scroll inscription of a Kusāna King, year 136." (D. C. Sircar Select Inscriptions Vol. 1965 p. 133 A.D.).

It should be stated here that there is no scope for this kind of observation. Mogali is the name of the mother of the minister as it is a practice with the issuers of the edicts to mention the names of the parents in the inscriptions. So Mogali cannot be the name of a place. The term indicates a woman, whose ancestral patriarch was Mudgala. In other words she sprang in a family of which the ancient patriarch was Mudgala. *Mudgalasya gotrāpatyam strī Maudgalī*. So the term Mogali can never be the name of a place. The word *Mulakhaṁva* indicates *mūlastambha* more accurately *mūlaskambha* which indicates the basic pillar i.e. the pillar at the foundation upon which some superstructure has been or is to be raised. In Vedic the word *skambha* occurs and it indicates what is actually signified by the term *stambha* i.e. a pillar. It indicates the very exalted and res-

possible position of the minister. The word *vachena* stands for Skt. *vātsena* or *vātsyena* signifying one "who belongs to the Vatsa family." The word *silāgahā* occurs in the plural; so the word should be translated as "stone-houses." On the basis of these observations we should translate the edict as: "The stone-houses were caused to be constructed by the minister Mūlastambha (the main pillar at the foundation of the empire) of the Vatsa family, who was the son of Maudgalī (a woman, who sprang from the ancestral patriarch Mudgala) and Śivamitra, the grandson of Śivadatta and the great grandson of Śivānandin." The language of the inscription is Prākṛit and there is no ambiguity or any controversial matter in it.

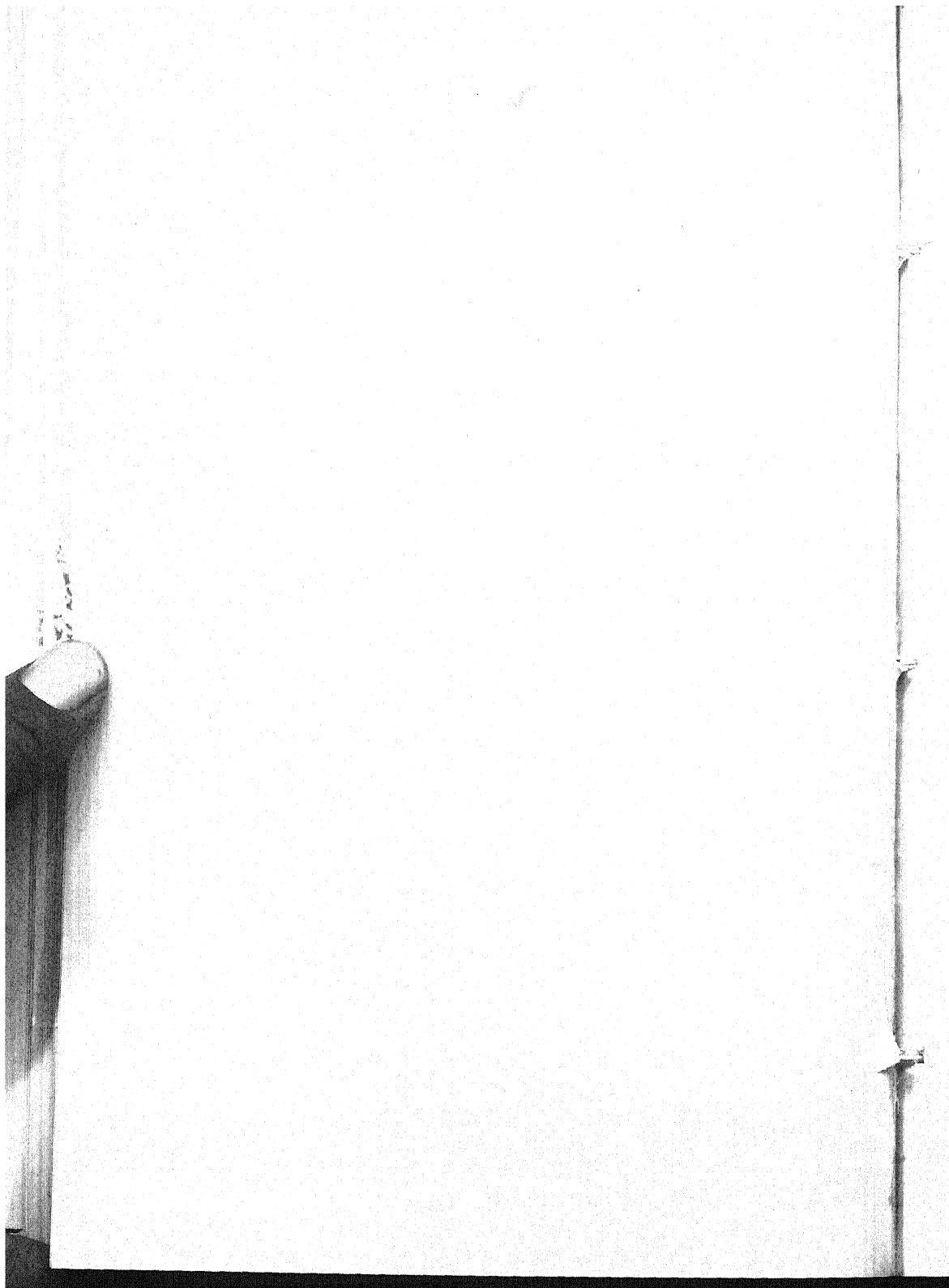
The paper "Aśoka's Silāthambhas and Dhammathambhas" by K. R. Norman has appeared very interesting to us. There were two opposite views regarding the fact whether Aśoka raised all the pillars himself upon which his inscriptions were inscribed or besides those, which he himself built there were some pillars constructed by others before him which were utilised by his agents for the propagation of his doctrines. R. K. Mukherjee maintains the second view while the first is endorsed by A. Ghosh, Norman maintains the view of Mukherjee and opines that there is no indication in the edicts that there did not occur any pillar constructed by earlier kings before Aśoka.

We reach our conclusion by way of analogy. In the Nigliya Pillar Inscription it is stated that Aśoka enlarged the relic-mound of Kanakamuni for the second time when he was already anointed for fourteen years. This leads one to the supposition that the relic-mound of Kanakamuni was constructed by some person other than Aśoka and it was enlarged for the first time either by Aśoka or by some body else (i.e. any body other than Aśoka). At least Aśoka does not claim to be the performer of these two tasks. It seems also hardly possible that within the period of fourteen years Aśoka constructed the mound himself and also enlarged it himself for two times in the subsequent period. Further Kanakamuni being an earlier Buddha was far remote from Aśoka, which surely decreases the degree of possibility of the construction of his relic-mound by him (Aśoka). It urges one to make the surmise that the *stūpa* occurred before Aśoka and he did not construct it himself. If such be the fact in the case of the construction of the *stūpa* similar should be the situation with regard to the construction of the pillars too.

This leads one to the conclusion which Mukherjee has drawn and Norman has supported. Still, one must admit, there seems to remain some doubt, which cannot be dispelled at the present state of our knowledge.

The papers in the second part of the Bhandarkar volume are full of scholarship and they deserve serious study. The interested students may find immense materials for study in the papers of the volume and these may benefit them.

We heartily thank Dr. Samaresh Bandyopadhyaya for having successfully edited the volume. He ungrudgingly worked hard for several years to bring this work to success. In fact it is repaying the debt which the students of Bengal owed to Bhandarkar for the service which the scholar rendered to the student-community of this place. Bengal will never forget Bhandarkar, who wormly loved Bengal and the students of this distant part of the country. Sir Asutosh rightly chose the man and brought him from Mahārāṣṭra for the upliftment of the nation at the time of its formative period.



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Pālakāpya

Vyāvahāranirupāṇa from Vivādaṭāṇḍava.

This volume of the Journal contains several coloured plates from the illustrated manuscripts in the possession of the Asiatic Society.



Madhusudhan Nyayacharya

Born : Oct. 1900

Died : Aug. 1985 ..

PANDIT MADHUSUDAN NYAYACHARYA
AND
NAVYA-NYĀYA STUDIES

BIMAL KRISHNA MATILAL

On August 26, 1985, Pandit Madhusudan Nyayacharya died. With his death an era of traditional scholarship came to an end. He was by far the best Naiyāyika of our country who continued the tradition of Gaṅgeśa, Raghunātha and Gadādhara. It is a great pity that this tradition is coming to an end. Pandit Nyayacharya's death is a great loss not only to the Sanskritic scholarship of our country but also to the global community of philosophers.

Navyanyāya is a living tradition, and perhaps the only living tradition, of our classical schools of *darśanas*. India's glorious period of classical philosophy is a matter of history today. Of many schools, Navyanyaya has survived till to-day and it has been enriched by the scholarship, teaching and creative writings of such pandits as Madhusudan Nyayacharya. The sophistication of the Navyanyaya theories and arguments can only be matched by modern Western logical analysis of language and thought in the writings of Frege, Russell, Quine and Kripke.

Pandit Madhusudan was born in village Amtali of Faridpur District (now in Bangladesh). In his earlier life he studied Nyaya with the foremost pandits of his time, and started teaching in Deoghar. From Deoghar he moved to Navadwip and then to Varanasi where he established himself as one of the foremost Naiyāyikas of Varanasi. From Varanasi he went to Sanskrit College, Calcutta, and taught there until retirement. Even after retirement he was appointed as Visiting Professor of all three Universities of Calcutta and of the University of Burdwan. In 1985 he was appointed as Professor of The Asiatic Society, Calcutta. Honours, honorary degrees, and prizes were showered upon him. He was an astute debater in matters related to philosophy particularly to Navyanyaya. He received the title 'Mahopadhyaya' from Sanskrit Sahitya Parishad, Calcutta. The Samkaracharya of Sringeri Math invited him to participate in a *Vicarasabha* when he proved his excellence in the All-India Forum. Samkaracharya awarded him the title 'Tarkalankarapada', the highest honour of that *Vicarasabha*.

In 1981 he received the national award of the leading Sanskrit pandit from the President of India.

He wrote a number of books and articles in Bengali. He wrote a Sanskrit commentary on Paksata. Besides, he prepared two works in lucid Bengali, one on *Sabdasaktiprakashika* and the other on *Padarthatattvanirupana*.

His death has been a great blow to all of us who studied under him. The articles of this issue of the Journal have been written to honour his memory. May his soul rest in peace.



Raja Sri Radhakanta Deva Bahadur, K.C.S.I. Painted by F. R. Say

LIFE AND ACTIVITIES OF ATIŠA DĪPAṆKARAŚRĪJĀNA :

A SURVEY OF INVESTIGATIONS UNDERTAKEN

HELMUT EIMER

The subject under discussion covers such a large area that this paper cannot treat it in its entirety. We will therefore limit ourselves to a discussion of the following four points : 1. Questions of historical method, focussing particularly on the analysis of sources found in Ernst Bernheim's *Lehrbuch der Historischen Methode und der Geschichtsphilosophie*. 2. Remarks on how the biographical material on Atiśa is to be viewed in relation to these questions of method and some conclusions that may be derived from analysing the relevant sources. 3. A short outline of Atiśa's life as seen today ; some critical remarks show where the limits of present-day knowledge lie. 4. At the end, some thoughts on the activities of Atiśa.

I

Our knowledge of past events rests on sources. In historical methodology there is still disagreement on the correct way to classify source material ; however, it will be enough for our purposes to divide the sources into primary and secondary ones. Among primary sources we place those which come directly from the event or person concerned, and among secondary sources those which depend upon primary sources or upon other secondary sources. In the area of biography we must deal with different kinds of source material ; the primary sources can, for example, be the works of the person concerned, insofar as they survive as autographs, but usually the works are only of a secondary nature since they have been subjected to the process of transmission.

It is necessary, therefore, to depend largely upon secondary material unless an authentic autobiography or a biography written by an eyewitness is available. The secondary sources represent the result of the transmission of reports on the person ; the statements of the eyewitness are taken over by a first biographer and possibly transformed and rearranged ; in the second and later stages of transmission there are again possibilities for changes. This

process of gradual transformation can be observed in all literary genres, in purely biographical, in general historical and in didactic works. In addition there are also reports, or fragments of reports, in hymns of praise, for example those meant to preserve the memory of an exceptional personality.

It is therefore necessary to collect all possible written material which touch on the personality in question before beginning the proper investigation of the biography. If, while collecting sources, one comes across authentic primary material which attests the event, it is possible to leave the secondary sources aside. Otherwise a further step will be necessary : the value of every single source must be investigated. These tests must begin with questions about the author of the work at hand and the time of composition. In many cases this information can be deduced from the text itself ; but in a tradition which spans several centuries, the age of a source gives no precise information about its place in the transmission : a recent work may be based upon a very valuable and ancient source, better than those used for many earlier works.

To determine the value of a source in the transmission it is necessary to turn to source criticism, a procedure also to be used to set undated works in their proper place in the transmission. Source criticism is a process similar to textual criticism. The task of textual criticism is to investigate the different *testimonia* of a text, in order to determine which manuscript most closely resembles the autograph or the archetype, or at least to eliminate errors which have crept in during the transmission. Textual criticism attempts to restore a literary work to its original state. The task of source criticism is to determine—I quote here the fundamental work of Ernst Bernheim—“whether the present source is an original source, i. e. one which represents in form and content an independent or direct witness to the events (ob die vorliegende Quelle eine Urquelle, d.h. ein in Form und Inhalt unabhängiges bzw. Unmittelbares Zeugnis der Begebenheiten sei).” Both procedures, textual criticism and source criticism, attempt to re-create an original condition, the former of a text, the latter of a report.

In textual criticism one can only proceed by using the variant readings in the sources ; all discussion must be based on them. In source criticism, one must first determine whether the sources are related : the closer the agreement, the closer the relationship. These agreements do not have to be literal in every case ; it is enough that

for a number of events the content of the report provides corresponding details.

How can it be proved that a particular source among several related sources stands closest to the original? The age of the text itself can be decisive only in exceptional cases. The stylistic form and the construction of the presentation must therefore be considered: the simpler the form and construction, the closer the source to the original! It is a fundamental observation, proved in many investigations, that an author who treats an older description strives to improve on it, not to make it worse. Source criticism in the most favourable cases can recognize the first of a given report: however, we usually have to be content with a later form of the transmitted material—that is, the picture that has been built up some time after the event. Source criticism is then the first stage in the treatment of available sources. It is considered a part of 'external criticism' as opposed to 'internal criticism', which concerns itself not only with formal argumentation but also with judgment of content. The bases for such judgments are taken from our experiences of present-day life, and therefore in 'internal criticism' there is a danger that subjective viewpoints, for example those tied to our own world-view, might intrude into the argument. Nevertheless it must be considered the task of a truly critical investigation of historical events to make one's way through 'external criticism' and 'internal criticism' in order to arrive at a judgment of the reality of the events.

II

We will now attempt a practical application of these principles to research on Atiśa's biography. Accounts of this spiritual teacher are found in a great number of Tibetan texts—texts which belong to different literary genres: we have taken into account nineteen historical works, six biographies, five doctrinal works, six catalogue works or local chronicles, and eight hymns of praise. There are certainly other Tibetan works which might also be considered. The works, forty four in all, which contain statements about Atiśa, come from different periods. The older sources which may be dated with certainty bring us the *curriculum vitae* of Atiśa in such a short form that it is impossible to do much in the way of comparing

sources (e.g. the *Ecclesiastic History* of Bu ston Rin chen grub, the *Deb ther dmar po* and the *Sba bzed*).

For a beginning we can choose the two most extensive biographies, the *Rnam thar rgyas pa* (full title : *Jo bo rje dpal ldan mar me mdzad ye šes kyi rnam thar rgyas pa*) and the *Rnam thar yoñs grags* (full title : *Jo bo rin po che rje dpal ldan a ti ša 'i rnam thar rgyas pa yoñs grags*), because it can be assumed that the greatest amount of material for comparison is to be found there. A more important point is that the *Rnam thar yoñs grags* is contained in the official collection of the Bka' gdams pa school, the *Bka' gdams glegs bam*. Comparison of the two extensive biographies shows that they are closely related. This relationship can be seen not only in agreement as to contents, but also in extensive passages of identical text. In view of this great similarity, it is particularly remarkable that these two works differ in structure and in the arrangement of single episodes. This can serve as an argument determining the form of the relationship between the two works. The clear structure of the extensive Atiśa biography in the *Bka' gdams glegs bam* shows this presentation to be the more modern. A further argument for this is the standardized form of the language in this biography, while in the *Rnam thar rgyas pa* we find remnants of colloquial or dialect forms. However, the *Rnam thar yoñs grags* is not derived from the *Rnam thar rgyas pa*; both works descend from a common ancestor. That this ancestor derived from different kinds of material is shown by the fact that in the older of the two biographies a division between the report of Atiśa's life and his spiritual abilities is preserved.

According to the reports contained in these two works concerning the beginning of the biographical tradition on Atiśa, there were at first perhaps 100 years of oral tradition. Besides that, there were hymns of praise on the master from the earliest time, and his two companions, Sa' i sñiñ po and Nag tsho Tshul khrims rgyal ba, are named as authors of these hymns. A number of verses from these hymns are quoted in the extensive biographies, in particular in a context where the statements which appear in these verses also appear in prose. This shows a close relationship between the verses and the prose passages, and one can conclude from this that the *nucleus* of the tradition has originated from one informant, namely Nag tsho Tshul khrims rgyal ba.

When comparison of the other available sources for the life of Atiśa is brought into consideration, we find a great deal of agreement between the reports given. These points of agreement—depending on the completeness of the sources in question—are of different kinds. Works carrying the most detailed presentation reveal passages with identical formulations, while the shorter biographical sketches on Atiśa contain descriptions of the main facts which are identical only in broad content. It is certain that there exists an established tradition on Atiśa's life. This tradition can be seen as an example of a biographical tradition in Tibet, and we can use it to investigate the manner in which the transmitted material changed in the course of time. Let us consider an episode from Sum pa mkhan po's *Dpag bsam ljon bzai* : According to this book Atiśa when taking refuge left five wives and nine sons ; the older tradition maintains that Atiśa's elder brother had five wives and nine sons. In the *Dpag bsam ljon bzai* the portraits of the two persons have been run together, thereby enlarging the scale of renunciation : Atiśa, like Sākyamuni, left both wife and child in order to become a monk.

The older tradition on Atiśa shows in spite of its different forms a simple presentation which is replaced by more elegant ones in later works. An example of such a literary transformation can be seen in the historical work of Padma dkar po : the author uses materials from four related versions of the Gar log episode ; he joins together fragments—which have the same function in their own contexts—from various texts, thereby achieving an integrated treatment with a correspondingly dramatic effect. One must always be prepared to meet with such transformations in the course of transmission. In support of the testimonial quality of the older sources stands the fact that here and there events are related which do not quite fit the image of a saint : Atiśa the high-minded monk complains of the scarcity of alms. In another case he accepts a girl's bridal finery as a gift, without being able to foresee that the scolding of the girl's parents would drive her to drown herself in the Tsang po. Would such statements be preserved in later *rnam thar* works ?

III

We now come to the third point, the outline of Atiśa's life, as it can be seen from the sources known today. The main part of

his biography is taken up with his setting out for Tibet and his residence there ; there is not so much handed down to us about his life in India as compared to what we know about his twelve years in Tibet. Atiśa was descended from the provincial nobility of an area not far from present-day Dacca in Bangladesh. It seems that he had a carefree childhood in company with his two brothers. As a young man he sought contact with tantric teachers. However, because this sort of life did not answer all his questions, he turned to the Buddhist order at the age of 29. With this step he began a second stage of spiritual training : Atiśa studied with teachers of different Buddhist schools. Apparently his most important teacher was Suvarṇadvīpa Dharmakīrti ; all extensive biographies speak about a sea voyage to Sumatra (Sanskrit : Suvarṇadvīpa) and his sojourn there for twelve years. A critical analysis of these accounts—in view of the reliquaries of Suvarṇadvīpa, of Atiśa and of ‘Bromston Rgyāl ba’i’ byuṅ gnas in Rva sgreṅ—leads to the suspicion that Atiśa met his teacher Suvarṇadvīpa in Bodhgaya or in another Indian monastery. We can infer from the colophon of the *Madhyamakaratnapradīpa* (Tibetan Tripiṭaka, No. 5254) that he met another scholar in Somapuri, who came from Ceylon. These last remarks take us a little into the realm of internal criticism, where objects, namely the reliquaries in Rva sgreṅ, are taken into consideration too. We cannot yet attempt to use the procedures of internal criticism in analyzing the entire Atiśa biography—probably too many essential old sources are still lacking.

The events in Atiśa’s life which were witnessed by Tibetans are far more extensively reported. To describe the religious situation, a survey of the Tibetan kings up to the rulers of Western Tibet in the eleventh century is given before relating the invitation to Tibet. The two extensive biographies show that it was possible to bring Atiśa to Tibet only after sending him a number of embassies. These passages are replete with a lot of details. Then we learn about the journey to Western Tibet and his stay there. It is certain that Atiśa and Rin chen bzaṅ po met in Mtho ldiṅ ; the debate between the two learned monks apparently had a strong influence on the development of the tantric tradition in Tibet. On the way back to Nepal, Atiśa met the future founder of the Rva sgreṅ monastery and of the Bka’ gdams pa School, ‘Bromston Rgyāl ba’i’ byuṅ gnas. After a local conflict had broken out in Nepal, Atiśa turned to Central Tibet. The sources supply

exhaustive details on the stages of the journeys that followed. There are even details of everyday life : in some places the travellers received everything they needed, but in others they were not admitted and were forced to travel onward. In the account of these journeys two points stand out to show that they must represent descriptions of actual events. Khu ston Brtson 'grus g.yuñ druñ, one of the most distinguished clerics of Central Tibet, made great efforts to have Atiśa settle in his land, Yar klunś. The Indian scholar accepted the invitation and was received with great honour. Interest in him, however, soon waned : the populace no longer made donations sufficient to support the Indian monk and his small retinue. When a hostile attitude towards the strangers appeared, Atiśa decided to flee, left secretly and saved himself by crossing the Tsang po. Khu ston nevertheless followed him and tried to persuade him to return. This behaviour of the Tibetans towards the Indian master could have been a reason for some writers to leave the entire episode out of the tradition. The second example : Atiśa was a guest of a high noble, Bodhirāja of Bsam yas, who had a great interest in spiritual teachings. This displeased a noble lady of the Mchims family, who wanted to have Bodhirāja as a husband. She gave money to street urchins and had them sing songs abusing Atiśa. He heard them and knew that he could no longer stay in Bsam yas. These two short episodes also show something else : during his travels in Tibet, Atiśa was not a saint honoured in every way and received joyously everywhere, but he depended rather strongly upon the support of the local rulers and populace. At the end of these travels Atiśa lived a couple of years in Sñe thañ near Lhasa. After the death of their master at the age of seventy-two, the disciples of Atiśa were able to stay only one year in Sñe thañ ; then the local prince banished them.

It cannot be maintained with absolute certainty that the surviving reports describe actual events in the life of Atiśa, even if many episodes have the appearance of being close to the original source. On the basis of the dates of composition deduced for the two extensive biographies and their common source or sources, we can conclude that the portrayal of Atiśa's life as we have it today already existed in the thirteenth century. Only the discovery of other old sources will enable us to come closer to his life and times. Such a source, the *Be'u bum sñon po*, was made available recently, but it could not be utilized for this paper.

IV

After this sketch of Atiśa's career, a few remarks should be added concerning the nature of his activities. This leads especially to the question, "What constitutes the importance of Atiśa?" An answer is not to be found in the outward circumstances of his life; for the foundation of the Bka' gdams pa School was carried out not by himself but by his disciple 'Brom ston Rgyal ba'i 'byuñ gnas. It is therefore necessary to investigate the numerous works of Atiśa which are found in Tibetan translation. In the Tibetan tradition his most important work is the *Bodhipathapradīpa*, *Byañ chub lam gyi sgron ma*. This exposition of the Buddhist way to enlightenment was also used as a basis for the *Lam rim chen mo* of Tsoñ kha pa Blo bzang grags pa. None of Atiśa's works have attracted the attention of Tibetan scholars so much as the *Bodhipathapradīpa*; only for this book is there a quantity of commentaries and commentarial summaries. The subject of the *Bodhipathapradīpa*, "The Path to Enlightenment", has been constantly treated by learned monks since the foundation of the Buddhist order. What is special about Atiśa's exposition of the way to salvation? In spite of the shortness of the *Bodhipathapradīpa*—it contains only 276 lines of verse—this booklet presents all the important points concerning the path to enlightenment. The intention of the reader to enter upon the path and follow it is subtly and constantly encouraged. We perceive the real importance of the *Bodhipathapradīpa*, therefore, in its didactic thread—one could even say in the catechetical dexterity of its author. Thus the division of men according to spiritual intentions into lower, middle, and higher serves to attract the reader to the ideal of a Mahāyāna bodhisattva; this does not represent a new doctrine, it was taken from the *Abhidharmakośa*.

The fact that the works of Atiśa—usually reckoned at about 100—have come down to us in Tibetan translation has two causes: the first is that Atiśa spent a part of his life in Tibet and preached there; the other, that the Tibetans set a particular value on his teaching concerning the path to enlightenment and concerning Tantra as well. It was quite another case with two Indian contemporaries of Atiśa, Ratnakīrti and Jñānaśrīmitra, whose philosophical treatises—leaving aside their other works—with only a single exception were not translated into Tibetan, although

Sanskrit manuscripts reached Tibet, as we know since some have been found there.

What was the source of prestige for Atiśa's works among the Tibetans? In both the extensive biographies we read, "...at the request of X the master recited and expanded upon this or that text and translated it with the collaboration of the Lotsaba." However, according to an oral tradition, Atiśa knew only a little Tibetan, in any case less than was necessary for preaching. We must therefore assume that for each preaching a translation of the Sanskrit or Prakrit original was prepared and later corrected to make a standard version. The quality of these translations, for the most part prepared by Nag tsho Tshul khriṃs rgyal ba, had an influence in attracting and holding some disciples; but the main reason for the success of the sermons is again to be seen in the extraordinary didactic, catechetical abilities of Atiśa. In the light of this we can begin to understand the remarks often repeated in the reports of the invitations extended to Atiśa to come to Tibet, namely that he alone could bring benefit to Tibet.

It did not seem necessary to give extensive bibliographical notes on every point. The foundations of the historical method suggested here can be studied in the following :

Ernst Bernheim, *Lehrbuch der Historischen Methode und der Geschichtsphilosophie*. I/II (Reprint of the 5th and 6th editions 1914). New York (1970). (Burt Franklin : Bibliography and Reference Series, 21. Selected Essays in History, Economics and Social Science, 175).

Kr. Erslev, *Historische Technik. Die historische Untersuchung in ihren Grundlagen dargestellt*. Aus dem Daenischen uebersetzt von Ebba Brandt. Muenchen and Berlin : R. Oldenbourg 1928.

The investigations surveyed above led to the following publications of ours :

1. *Berichte ueber das Leben des Atiśa (Dīpaṇkaraśrījñāna). Eine Untersuchung der Quellen [i. e. Accounts of the Life of Atiśa (Dīpaṇkaraśrījñāna). A Study of the Sources]*. Wiesbaden : Otto Harrassowitz 1977. (Asiatische Forschungen, 51.), XII, 364 pp.

2. "Die Gar log-Episode bei Padma dkar po und ihre Quellen" [i. e. The Gar-log Episode in Padma-dkar-po's History and its

Sources]. *Orientalia Suecana*, XXIII-XXIV (1974-75), Stockholm 1976, pp. 182-197.

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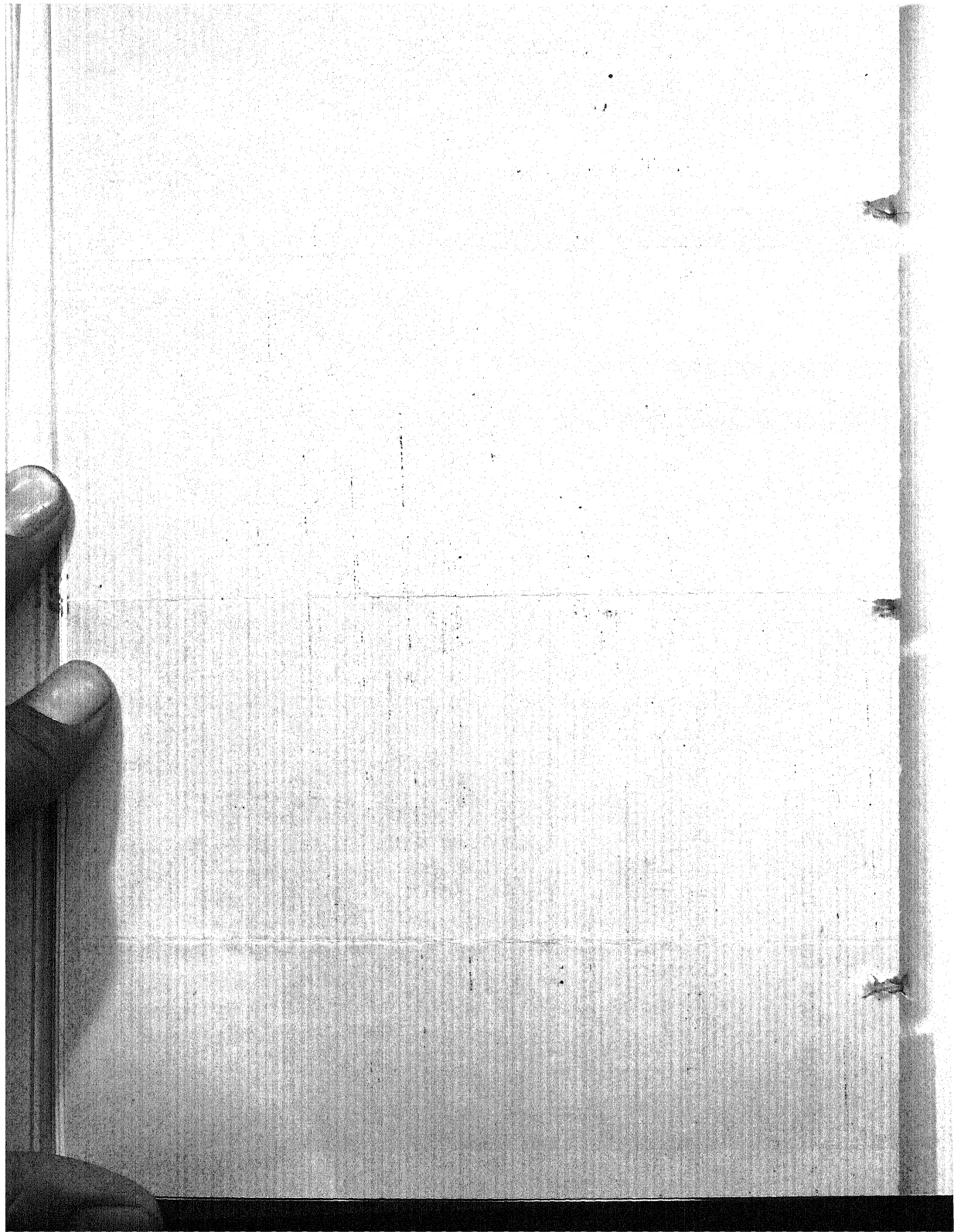
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ON THE THEORY OF NUMBER AND PARYĀPTI IN NAVYA-NYĀYA

BIMAL KRISHNA MATILAL

There has been some controversy about the notion of *paryāpti* as a relation among the modern interpreters of Navya-nyāya. Even the exponents of Navya-nyāya, such as Gadādhara, Jagadīśa and Mathurānātha, were not unanimous about the exact interpretation of *paryāpti*. The problem is of course related to old Nyāya-Vaiśeṣika theory of number. A number has been treated as a quality or a quality-particular (*guṇa*), an ontological category, and hence, according to the received doctrine of the Nyāya-Vaiśeṣika ontological scheme, it must be said to reside in the things or substances (counted one, two, three and so on) by a connector that is called inherence or *samavāya* in the system. But that is the beginning of our trouble. For one thing, items other than substances are also counted as one, two and three and the technical notion of *samavāya* would not be available for uniting numbers with such numbered items. For another, if for example duality inheres (i.e. resides by 'inherence') in two things counted as two then it must inhere also in either of them separately, and hence we must tolerate the oddity of saying that, of a pair, say the sky and the earth, the sky has duality!

The first problem is usually avoided by Nyāya by constructing a 'chain' relation. When we count qualities, actions or universals rather than things having properties, we do it on the basis of such 'chain' relations. In other words, we connect such numbers as two or three with the qualities and actions through the intermediary of the substances having them. This 'chain' relation may be variously formulated and in the context of "two qualities" it is technically called '*svāśraya-samavētatva*' or locus-cum-inherence. This explanation is tolerated as long as we take a very generous view about 'residence'. For Two-ness or duality does not actually *reside*, according to this explanation, in the qualities counted, but is connected with them because it resides in the substances (or substance) where these properties reside. This explanation

can be called in question, but I shall leave this problem here for the present.

Faced with the second problem, some exponents of Navya-nyāya have suggested that we should talk about two different ways by which numbers are connected with things numbered. One is the relation of inherence. To understand this we may think of a similar situation of a particular taste (*rasa*) residing by inherence in a substance like a mango. The taste inheres in the mango pervasively such that a part of the mango is also the place where the taste resides. Similarly, if duality inheres in the sky and the earth when counted as two it would be wrong to say in one sense that duality does not inhere in the sky at that time. In other words, just as in the case of the mango taste inheres also in its part, duality belonging to the two, the sky and the earth, must inhere also in one (part). This of course does not allow us to say that the sky is two for that would obviously be a false awareness and hence a false sense but we may say "The sky has two-ness or duality (*dritva-vat gaganam*)" for it would be a verbal report of a correct awareness (for which the argument has already been given). This is one of the exception to the general rule by which the "has" relationship is easily transformable into an "is" relationship. Consider :

"A has B-ness" is equivalent to "A is B". But "The sky has two-ness" is not equivalent to "The sky is two". The second way of connecting numbers with the numbered items is by a connection that would allow only such expressions as correct "The sky and the earth are two", "two sticks" and "three mangoes" but would not allow such wrong inferences :

1) "Three mangoes"

therefore 2) "Three-ness resides in these (three) mangoes." and

therefore 3) "Three-ness resides in each (of those mangoes)"

The connection called *paryāpti* is posited as a relation that allows passage from 1) to 2) but blocks the passage from 2) to 3). This relation is thus supposed to distinguish itself from inherence. Three-ness or the number three is connected with all three items together (counted as three) by this relation and not with just one of them. It is an "all or nothing" sort of connection. The problem is also connected with the peculiarity of the Nyāya-Vaiśeṣika theory of number, as we shall see below. In sum : numbers (like two-ness, three-ness), by inherence relation,

reside not only in the things numbered jointly but also in each member of the group by the same token, by *paryāpti* relation they can reside in the numbered things grouped together, not in the individual members in the same way or by the same token¹.

This is however not equivalent to Frege's definition of number as set of sets. Viz. the number two is the set of sets of two things. There is however very distant resonance here with the distinction made in the Western tradition between the membership relation (of element, with the set) by virtue of which either of the two elements is said to be a member of the set of those two things and the relation of member two defined as a set of all sets of two things to its member sets. The number two or duality (two-ness) can also be seen as a property belonging to the totality consisting of two things. Now if this means that duality belongs to the totality of two things without belonging to either elements of the totality, then we seem to come very close to postulating the *paryāpti* relation. One however need not make too much of this superficial similarity. D. H. H. Ingalls was the first to point this out². But his account was sketchy and incomplete. Perhaps, it was also based upon a misunderstanding of the exact significance of the *paryāpti* relation in the Navya-nyāya programme for analysis of cognitions. Superficial similarity, it seems, had misled Ingalls into ascribing a significance to the *paryāpti* relation which was not there³. D. C. Guha has put the matter in the right context. His account of *paryāpti* relation is fairly correct and properly contextualized although it is unfortunately loaded with Navya-nyāya (Sanskrit) technical terminology⁴. Guha rightly points out that the technical vocabulary of involving *paryāpti* is resorted to so that the number of delimiting properties (*avacchedaka*) on one side can be exactly matched by the same number of delimiting properties on the other side, they should be neither more nor less.

This needs some explanation. The pervasion (*vyāpti*) relation is formulated as one of co-location of *s* (*sādhya*) with *h* (*hetu*) provided the delimiting property of being such as *s* is not the delimiting property of the absenteehood of an absence which (absence) is collocated with *h*. In the usual example of inferring fire (our *s*) from smoke (our *h*) there is pervasion of smoke with fire because delimiting property of being *s*, firehood, is not the delimiting property of the absenteehood of such

absences as absence of pot or absence of cot that are colocated with smoke. Now it is possible to say that absence of all (kinds of) fire or the absence of two (kinds of) fire (i.e. grass-fire and non-grass fire) is also colocatable with smoke. If this is so, than the delimiting property of such absenteehood would be all-ness belonging to all types of fire or duality belonging to the two kinds of fire. These properties, all-ness of duality, are however pervader of firehood. That is, firehood does not reside anywhere when such properties are not present. They occur in various bodies of fire, and so does firehood ! This upsets the previous formulation of the 'pervasion' relation. For the said delimiting property of the absenteehood must include, according to Raghunātha's explanation, not only such pervader properties as all-ness or duality but also those properties that are pervaded by them, viz. firehood in the present case. Now firehood is also the delimiting property of *s*, not different from it. Hence the above formulation fails.

To avoid this problem, Raghunātha has added that the said delimiting property (of the absenteehood) should be such that it should occur in the same and equal number of places or substrata as does any other pervaded property (such as firehood). Compare⁵

Svasamānavṛttikatvam

This is further explained by Raghunātha as *sva-paryāpty-adhikaraṇa-paryāpti-vṛttikatvam*.

The said delimiting property should be such that it should be the adjunct of such a paryāpti relation as would be delimited by that very property as would also delimit the subjuncthood (*anya yogita-adhikaranatā*) of the paryāpti relation of the would be pervaded property (of the said delimiting property). Now firehood cannot be the pervaded property of the said delimiting property such as all-ness or duality (in such absences as "all kinds of fire are absent" or "both kinds of fire are absent"). For firehood exists in each individual body of fire by *paryāpti* relation while the said duality or all-ness cannot so exist by *paryāpti* relation. When we say, "this is one body of fire" (or "this is one pot") both firehood and unity exist in the particular (referred to by "this") by *paryāpti* relation the residence being delimited by the particularity of that particular (*idamtvā*). When we say "These are two bodies of fire" both duality and firehood exist in those two particulars taken together by *paryāpti* relation.

Raghunātha was the first to give the seminal account of *paryāpti* as a relation in *Avacchedakatva-nirukti* of *Tattvacintāmaṇidihiti*⁶.

paryāptiś cāyam eka imau dvāv ityādi-pratītisākṣika svarūpa-sambandha-viśeṣaḥ

This means that the relation we call *paryāpti* is a self-linking connector (a *svarūpa sambandha*)—that is evidenced by such specific cases of awareness as “this is one” and “these are two”. According to the usual Nyāya-Vaiśeṣika ontological scheme, there is the relation of *samavāya* or ‘inherence’ between the numbers and the numbered entities (things). But since this cannot account for such differences in awareness as “two mangoes” and “two-ness or duality is present in or ‘shared’ by one (of the two)”, it is argued by Raghunātha and others that we have to accept another connection between numbers (and many other properties) and the numbered entities or substrata that allow such first usage (“two mangoes”) but not the second i.e.... “duality in present in one”.

Let us consider the following case. It is possible to say that in kitchen where smoke is present there is absence of both (kinds of fire, gas fire and non-gas fire), and the absentee here is fire and the delimiting property of the absenteehood is also both-ness (belonging to both kinds of fire). Since this both-ness also pervades firehood, we cannot expect the correct inference of fire from smoke to go through for the formulation of the definition it has been said that fire-ness should not be the delimiting property of the said absenteehood. To block this drifting of the definition we have to tighten it by introducing the separate relation *paryāpti*.

The duality or both-ness is the delimitor. Hence the delimitorship is present in it by *paryāpti* relation of which the other term or the subjunct is duality. Duality is also present in the locus of duality by *paryāpti* relation of which the subjunct would be those dual delimiting property. Hence this duality belonging to both kinds cannot share the same number of substrata with firehood because each body of fire is a substratum of firehood (even by *paryāpti* relation) while duality needs both kinds together to reside in. Hence the above drifting is blocked. This is a very rough sketch of the background for introducing a new relation like *paryāpti*.

If a property exists in many things jointly but it is not possible to deduce from it that such a property is also shared singly by each

number of this group, then it is called a *vyāsajya-vṛtti* property (jointly-occurring property). Such properties invariably exist by *paryāpti* relation in their substrata. Duality, three-ness, quadruplicity and all-ness (*yāvattva*) are such properties. By extension even a non-*vyāsajya-vṛtti* property like unity (one-ness) and pothood (and firehood) is said to occur in its substratum by *paryāpti* relation as well (apart from the inherence relation). Of course the delimiting properties of their substratum-hood would be different in each case. As Jagadīśa has insisted (*Avacchedakatva-nirukti*) comm.,⁷

“This is one pot”—this is to show that pothood is present by *paryāpti* being delimited by a property that can exist only in one substratum.”

The possible implication is that when pothood is present in a pot by inherence no such delimitation is needed. Or, one may say that pothood is present by inherence in a pot, its substratumhood being delimited by pothood-ness. Jagadīśa has further commented that in “This is one body of fire” either of the properties, firehood or one-ness, is present by *paryāpti* in the particular body, being delimited by the particularity belonging to the substratum (*idamtvā*).

The Nyāya-Vaiśeṣika school entertains a rather peculiar notion of number—peculiar, that is, as far as our modern notion of number goes. A brief note on this issue may be in order here. All number are recognized as objectives realities, in fact objective properties resident in the things numbered. All members except unity or one-ness (according to some) are transitory entities created in such numbered objects and then destroyed when one of their crucial causal factors is destroyed. This crucial causal factor is however a cognitive event—which is technically called *apekṣā buddhi* a conjunctive—count-oriented cognition. This cognitive event tacitly arises in the observer (Count-er) and may be expressed verbally as “this is one and that is one (which makes two)”. This emergent “counting cognition continues to exist until the observer or count-er has perceived the two-ness, three-ness etc. in two things or three things. After such perceptions, this count-oriented cognitive event perishes (as all event must), and when such a crucial factor disappears there is no reason, as the Nyāya argument goes, for us to think that two-ness or three-ness exists. This two-ness is thus unique (particular) in two ways, due

to its own unique causal history as well as due to the uniqueness of the items counted. Universals are however said to inhere in particulars and hence a universal of two-ness is also posited as resident by inherence in each instance of duality (as we count two objects).

The usual English number-words, one, two etc. have a slightly ambiguous syntactical function. They are used mostly as adjectives or qualifier : two mangoes, one man. We can also use "two is a number" etc. This substantial use of "two" can be designative of properties or locates (*dharma*). Hence to dispel such ambiguity we may follow the Sanskrit style and use "two-ness" or "duality" as designative of the property that we call number two.

One cannot fail to notice the strain of 'subjectivity' in the above Nyāya conception of numbers as 'objective' properties. They are caused by a cognitive event that arises in the observer and the same event also accounts for its perception by the observer. They arise as particular occurrent and disappear from the objective world as soon as the said cognitive event is over. They seem to be very strange sort of objective properties, if we can call them *objective* at all. They are neither mental and it may be wrong to call them material in the usual sense. Two points are suggested to explain the oddity. First, here as elsewhere, Navyanyāya does not choose to talk in terms of such a mental-material dichotomy. But the exponent of Navya-nyāya would resist all attempts to describe numbers as *mental* entities, if such descriptions mean that they are not "out there" in the things. Secondly, even a cognitive event in Nyāya is treated as an object and its causation may deliver, "objective" realities. In fact, even the self in Nyāya can hardly be called 'subject-dependent' or 'subjective'.

The situation is comparable with the old dispute that centred around the status of sense-data among the Western philosophers of this century. The sense-data (according to some) are neither mental nor material or physical. They can be called simply "Phenomena" to cut across the mental-material dichotomy.

The introduction of *paryāpti* relation did not go unchallenged in Navya-nyāya. Professor Sibajivan Bhattacharya⁸ in his forthcoming book has presented the essential points of this controversy, which I do not wish to repeat here. Some would like to explain residence of two-ness in two things jointly without resorting to the positing of *paryāpti* as a connector. Inherence is supposed to do the job just as

well. A difficulty arises even among the exponents of *paryāpti* due to the tacit rule that if a property belongs to two or many, it cannot fail to belong to each separately. Mathurānātha and Gadādhara think that this rule does not apply here. For numbers can belong to the numbered without belonging to each individual. Jagadīśa thinks that this cannot be so. The rule remains : if a property does not belong to each by a relation it cannot *eo ipso* belong to the group (many) by the same relation. Hence if two-ness does not belong to either (of the two), it would be absent from both (by *paryāpti* relation) which means that the awareness "these (two) are not two" would have to be a (correct) knowledge—an absurd consequence. On the contrary, if two-ness belongs by *paryāpti* to either (this or that), we cannot say that "this is two" is what expresses a piece of knowledge (is true). For the residence (by *paryāpti*) of two-ness in one (this) object is predicated here on the basis of the delimitor of such residence, which is unity or uniqueness of this object. And hence it is a false awareness. This however raises questions about the relative merit of *paryāpti* over inherence.

For one point of view, however, *paryāpti* is simpler and ontologically less burdensome. By *paryāpti* the numbered entity has the number but the entity *has* the *paryāpti* of the number by itself (*svarūpa*), just as a thing *has* in it, the inherence (of colour, say) by itself (*svarūpa*). We need three ontic entities for the complex, number-inherence-substance (numbered). But for the complex, number-*paryāpti*-substance (numbered), we need only two.

For some strange reason, however, some Navya-nyāya exponents insist that the collection on whole-ness is not a separate entity. It is neither here nor there. For if the number of the collected items (where a count-oriented cognition is bound to arise) is a separate reality then we have already admitted something else as real (although a transitory one) over and above the collected items themselves. Besides, Nyāya accepts whole or *avayavin* as distinct from parts. Uddyota-kara asserted that many-ness (*bahutva*) is also a number and some times the distinctness of the whole (from parts) is but the distinctness of this many-ness as a number from the collected parts. This remark of Uddyotakara raises further questions which I forbear to answer here.

Notes

1. This has also been challenged. For some would argue that duality may reside in either of the pair by *paryāpti* relation to enable itself to reside in both by the same relation. But residence in the members of the group by *paryāpti* relation cannot generate the correct awareness of the sort, "Either is both or dual".
2. D. H. H. Ingalls, *Materials for the Study of Navya-nyāya Logic*, Cambridge (Mass.), 1951, P. 76-78
3. See the remark of Ingalls in the Foreword of D. C. Guha's book, *Navya nyāya System of Logic*, Varanasi, 1968, "For example, I see from his remark on the distinction between *dvitva* in one context and *dvitva* in another that an analogy which I made some years ago in print between *paryāpti* and Frege's theory of number should now be amended". (p. XX)
4. Notice the following remark of Guha :
 "To cite an example it may be said, according to the theory of the Navya Naiyāyikas that through the "Paryāpti" relation "Dvittva" or duality or for the matter of that any other property which exists in more than one object remain in the more than one object alone, which may be known as two or three etc., but not in any one of the objects which taken together comprise the whole." (p. 226) This is a clumsy statement, but it gets the matter right.
5. *Raghunātha's Avacchedakatva-nirukti*, (with Jagadīśa) ed. Pandit Rajanarayan Shukla, Benares, 2005 V. S., p. 34-6.
6. Ibid., p. 38
7. Ibid., p. 38
8. Sibajivan Bhattacharyya, *Introduction to Navya-nyāya Concept* (forthcoming).

BOROBUDUR AS A MONUMENT OF ESOTERIC BUDDHISM

LOKESH CHANDRA

The precise nature of the complex of 1 + 8 + 240 buildings of the Chandi Sewu, near Chandi Kalasan, in the village of Prambanan near Yogyakarta the cultural capital of Indonesia, has hardly been determined in a definitive manner taking into account the Indonesian Buddhist texts, their texture within the classification of vajrayāna tantras, the context of the cultural interflow between India and Indonesia during the epoch when the Chandi Sewu was constructed, the theory of architectonic constellations expressing dimensions of the tantric vision, the abundant Nepalese textual evidence hidden away in unpublished manuscripts, collateral artistic expressions of identical/parallel cosmograms in the Himalayan regions, and the multiplicity of Japanese traditions about the Vajradhātu maṇḍalas. The utilisation of original texts in Sanskrit or Tibetan or Sino-Japanese and comparative studies of the same theme in different traditions as preserved in manuscripts over vast regions of Asia has been steadily declining in the emerging order of over-generalisation at the expense of precision. Though F.D.K. Bosch (1961 : 111-133) had come to a correct but halting assessment about the appropriate identification of the Chandi Sewu as early as 1929, later scholars have hardly verified or elaborated his hesitant conclusions, and on the contrary they have relegated the Sewu to the undefined. Frits A. Wagner (1962 : 114) is simplistic in terming the central statue to "have been a bronze Buddha" instead of Vairocana. Further he states : "The whole construction, symbolising the cosmos, *maṇḍala*, was intended to assist the hermit in his meditations". The *maṇḍala* is not named and its primary function was not meditation for which a painted *maṇḍala* is the norm. Louis Frédéric (1965 : 163 pl. 182) is again imprecise in stating that "this temple, dedicated to Buddha, ...and probably symbolising the Mahāyāna pantheon". Buddha generally refers to Śākyamuni and not to Vairocana. The pantheon here is vajrayānic and therein too it belongs to a very specific tantric text. A. J. Bernet Kempers (1959 : 56 pl. 130) is correct but cautions in saying : "The central shrine of the main temple appears to have contained an image of the Highest Buddha as the central figure of an elaborate pantheon, presumably a Vajradhātu-

maṇḍala". Jan Fontein, R. Soekmono, Satyawati Suleiman (1971 : 144 pl. 4) feel that "it is impossible to reconstruct the iconographic plan of Tjandi Sewu. It is likely, however, that the assembled statues formed a huge Diamond Matrix Maṇḍala (Vajradhātu-maṇḍala)". The Sewu is an architectonic Vajradhātu-mahāmaṇḍala whose niches are a sure guide to its iconography though all its stone and bronze statues have disappeared 'within the memory of man', including the central statue of Mahāvairocana the fragments of whose head were discovered in 1927.

A few general observations about the precise denomination of Vajrayāna Buddhism that was prevalent in Indonesia would help in clarifying the context. Before doing so we will have to consider the classification of Vajrayāna tantras into four broad divisions of : (i) kriyā-tantras, (ii) caryā-tantras, (iii) yoga-tantras, and (iv) anuttara-yoga tantras. Each division is presided over by a different Buddha. They are as follows :

kriya-tantras	Amitāyus
caryā-tantras	Vairocanābhisambodhi (one face, dhyāna mudrā)
yoga-tantras	Sarvavid Vairocana (four faces, cakṛa in hand)
anuttara yogi (father) tantras	Guhyasamāja Akṣobhya
anuttara yogini (mother) tantras	Cakrasaṃvara

Every division has its fundamental and explanatory tantra. In Indonesia the teaching of yoga-tantras was prevalent. So also in Japan. That was the vogue in South India whence they were transmitted to both these countries. We shall cite *Rgyud-sde spyiḥi rnam-par-gzhag-pa rgyas-par brjod*, a survey of the entire field of tantra in terms of bibliography and basic ideas, by the great Tibetan master of tantras, Mkhas-grub-rje who lived from 1385-1438. He clarifies (Lessing/Wayman 1968 : 25) that the teaching of the yoga division of tantras is set forth in "two works, the fundamental tantra *Tattvasaṃgraha* (Toh. 479), and the explanatory tantra *Vajrasāekhara* (Toh. 480). They have primary commentaries by three men who are famed in India as being learned in Yoga, namely, Śākyamitra, Buddhaguhyā, and Ānandagarbha". Buddhaguhyā, who wrote the fundamental commentary *Tantrārthāvatāra* (Toh. 2501) on the *Tattvasaṃgraha* lived in the middle of the eight century as is attested by his letter (Toh. 4194) to the Tibetan King Khri-sroṅ-ldeḥu-btsan

who reigned from A.D. 755. His date is important as it lends weight to the fact that the eight century was the golden age of yoga-tantras, a fact corroborated by other historic events.

The yoga-tantras have five families (*kula* : tathāgata, ratna, padma, karma and vajra). Their kuleśa's are : Vairocana, Ratnasambhava, Amitābha, Amoghasiddhi and Akṣobhya. The deities created by his mudrā are the progeny (*kulika*, Lessing/Wayman 1968 : 102-3). Among them the Tathāgata-family of Vairocana is the highest. In the anuttara yoga-tantras, Vajradhara is added as the sixth family and he is the highest. This was further elaborated in the 'Mother Tantras' of the anuttara-goginī-tantras by the addition of a seventh family (dākinīs). In Indonesia we find only five families in the Sañ Hyañ Nāgabāyu-sūtra and Kalpabuddha (Bosch 1929 : 131-3), besides the expression *pañca-tathāgata* in Kalpabuddha (p. 133) and elsewhere. No statue which can be specifically attributed to the anuttara-yoga-tantras has been found in Indonesia. The anuttara division of tantras probably did not reach Indonesia and never came to vogue in China and Japan. It became popular in Tibet where it reached its apogee of development. Whenever a comparison of Indonesian iconography with that of Tibet is resorted to this fundamental fact has to be borne in mind.

Bosch has proved the close affinity of Indonesian Buddhist iconography with the Shingon iconography of Japan. It is but natural that the two traditions should agree as they represent the same yoga-tantra school of Buddhism. The basic tantra of this school was carried to China by Vajrabodhi who arrived in Canton in 720 by the sea route on board a Persian ship. He was the son of the Royal Preceptor (*rājaguru*) of Kanchi. Enroute they encountered a storm just twenty days before they reached Canton. All the thirty odd ships were lost, except that which carried Vajrabodhi, who saved it by his recitation of Mahāpratisarā-dhāraṇī. In the confusion that ensued, Vajrabodhi forgot to save the complete text of the Vajraśekhara-tantra of which the abridged version was preserved. This is the text he translated into Chinese and introduced its Vajradhātu maṇḍala, which is a collocation of nine maṇḍalas namely, the Vajradhātu-mahāmaṇḍala, samaya-māṇḍala, sūkṣma-maṇḍala, pūjā-maṇḍala, caturmudrā-maṇḍala, ekamudrā-maṇḍala, naya-maṇḍala, Trailokya-vijaya-karma-maṇḍala, Trailokyavijaya-samaya-maṇḍala. The central Vajradhātu mahāmaṇḍala is also known as the karma-maṇḍala or under its Japanese name of Jojinne. In the Tendai sect

exhaustive details on the stages of the journeys that followed. There are even details of everyday life : in some places the travellers received everything they needed, but in others they were not admitted and were forced to travel onward. In the account of these journeys two points stand out to show that they must represent descriptions of actual events. Khu ston Brtson 'grus g.yuñ druñ, one of the most distinguished clerics of Central Tibet, made great efforts to have Atiśa settle in his land, Yar kluñs. The Indian scholar accepted the invitation and was received with great honour. Interest in him, however, soon waned : the populace no longer made donations sufficient to support the Indian monk and his small retinue. When a hostile attitude towards the strangers appeared, Atiśa decided to flee, left secretly and saved himself by crossing the Tsang po. Khu ston nevertheless followed him and tried to persuade him to return. This behaviour of the Tibetans towards the Indian master could have been a reason for some writers to leave the entire episode out of the tradition. The second example : Atiśa was a guest of a high noble, Bodhirāja of Bsam yas, who had a great interest in spiritual teachings. This displeased a noble lady of the Mchims family, who wanted to have Bodhirāja as a husband. She gave money to street urchins and had them sing songs abusing Atiśa. He heard them and knew that he could no longer stay in Bsam yas. These two short episodes also show something else : during his travels in Tibet, Atiśa was not a saint honoured in every way and received joyously everywhere, but he depended rather strongly upon the support of the local rulers and populace. At the end of these travels Atiśa lived a couple of years in Sñe thañ near Lhasa. After the death of their master at the age of seventy-two, the disciples of Atiśa were able to stay only one year in Sñe thañ ; then the local prince banished them.

It cannot be maintained with absolute certainty that the surviving reports describe actual events in the life of Atiśa, even if many episodes have the appearance of being close to the original source. On the basis of the dates of composition deduced for the two extensive biographies and their common source or sources, we can conclude that the portrayal of Atiśa's life as we have it today already existed in the thirteenth century. Only the discovery of other old sources will enable us to come closer to his life and times. Such a source, the *Be'u bum sñon po*, was made available recently, but it could not be utilized for this paper.

IV

After this sketch of Atiśa's career, a few remarks should be added concerning the nature of his activities. This leads especially to the question, "What constitutes the importance of Atiśa?" An answer is not to be found in the outward circumstances of his life; for the foundation of the Bka' gdams pa School was carried out not by himself but by his disciple 'Brom ston Rgyal ba'i 'byuñ gnas. It is therefore necessary to investigate the numerous works of Atiśa which are found in Tibetan translation. In the Tibetan tradition his most important work is the *Bodhipathapradīpa*, *Byañ chub lam gyi sgron ma*. This exposition of the Buddhist way to enlightenment was also used as a basis for the *Lam rim chen mo* of Tsoñ kha pa Blo bzañ grags pa. None of Atiśa's works have attracted the attention of Tibetan scholars so much as the *Bodhipathapradīpa*; only for this book is there a quantity of commentaries and commentarial summaries. The subject of the *Bodhipathapradīpa*, "The Path to Enlightenment", has been constantly treated by learned monks since the foundation of the Buddhist order. What is special about Atiśa's exposition of the way to salvation? In spite of the shortness of the *Bodhipathapradīpa*—it contains only 276 lines of verse—this booklet presents all the important points concerning the path to enlightenment. The intention of the reader to enter upon the path and follow it is subtly and constantly encouraged. We perceive the real importance of the *Bodhipathapradīpa*, therefore, in its didactic thread—one could even say in the catechetical dexterity of its author. Thus the division of men according to spiritual intentions into lower, middle, and higher serves to attract the reader to the ideal of a Mahāyāna bodhisattva; this does not represent a new doctrine, it was taken from the *Abhidharmakośa*.

The fact that the works of Atiśa—usually reckoned at about 100—have come down to us in Tibetan translation has two causes: the first is that Atiśa spent a part of his life in Tibet and preached there; the other, that the Tibetans set a particular value on his teaching concerning the path to enlightenment and concerning Tantra as well. It was quite another case with two Indian contemporaries of Atiśa, Ratnakīrti and Jñānaśrimitra, whose philosophical treatises—leaving aside their other works—with only a single exception were not translated into Tibetan, although

Sanskrit manuscripts reached Tibet, as we know since some have been found there.

What was the source of prestige for Atiśa's works among the Tibetans? In both the extensive biographies we read, "...at the request of X the master recited and expanded upon this or that text and translated it with the collaboration of the Lotsaba." However, according to an oral tradition, Atiśa knew only a little Tibetan, in any case less than was necessary for preaching. We must therefore assume that for each preaching a translation of the Sanskrit or Prakrit original was prepared and later corrected to make a standard version. The quality of these translations, for the most part prepared by Nag tsho Tshul khriṃs rgyal ba, had an influence in attracting and holding some disciples; but the main reason for the success of the sermons is again to be seen in the extraordinary didactic, catechetical abilities of Atiśa. In the light of this we can begin to understand the remarks often repeated in the reports of the invitations extended to Atiśa to come to Tibet, namely that he alone could bring benefit to Tibet.

It did not seem necessary to give extensive bibliographical notes on every point. The foundations of the historical method suggested here can be studied in the following :

Ernst Bernheim, *Lehrbuch der Historischen Methode und der Geschichtsphilosophie*. I/II (Reprint of the 5th and 6th editions 1914). New York (1970). (Burt Franklin : Bibliography and Reference Series, 21. Selected Essays in History, Economics and Social Science, 175).

Kr. Erslev, *Historische Technik. Die historische Untersuchung in ihren Grundlagen dargestellt*. Aus dem Daenischen uebersetzt von Ebba Brandt. Muenchen and Berlin : R. Oldenbourg 1928.

The investigations surveyed above led to the following publications of ours :

1. *Berichte ueber das Leben des Atiśa (Dīpaṃkaraśrījñāna). Eine Untersuchung der Quellen* [i. e. Accounts of the Life of Atiśa (Dīpaṃkaraśrījñāna). A Study of the Sources]. Wiesbaden : Otto Harrassowitz 1977. (Asiatische Forschungen, 51.), XII, 364 pp.

2. "Die Gar log-Episode bei Padma dkar po und ihre Quellen" [i. e. The Gar-log Episode in Padma-dkar-po's History and its

Sources]. *Orientalia Suecana*, XXIII-XXIV (1974-75), Stockholm 1976, pp. 182-197.

3. *Bodhipathapradīpa. Ein Lehrgedicht des Atiśa* (Dīpaṃkaraśrījñāna) in der tibetischen Ueberlieferung [i.e. Bodhipathapradīpa. A Didactic poem by Atiśa (Dīpaṃkaraśrījñāna) in the Tibetan Transmission]. Wiesbaden : Otto Harrassowitz 1978. (Asiatische Forschungen, 59.), VIII, 284 pp.

4. *Rnam thar rgyas pa. Materialien zu einer Biographie des Atiśa* (Dīpaṃkaraśrījñāna) [i.e. Rnam-thar rgyas-pa. Materials towards a Biography of Atiśa (Dīpaṃkaraśrījñāna)]. 1.2. Wiesbaden : Otto Harrassowitz 1979. (Asiatische Forschungen, 67.), X. 486, XII, 436 pp.

5. "Suvarṇadvīpa's 'Commentaries' on the Bodhicaryāvatāra". *Studien zum Jainismus und Buddhismus. Gedenkschrift fuer Ludwig Alsdorf*. Wiesbaden : Franz Steiner 1981. (Alt-und Neu-Indische Studien, 23.), pp. 73-78.

6. "Die urspruengliche Reihenfolge der Verszeilen in der Bodhisattvaṃyāvali" [i.e. The Original order of the Verse Lines in the Bodhisattvaṃyāvali]. *Zentralasiatische Studien*, 15 (1981), pp. 323-330.

7. "The Development of the Biographical Tradition Concerning Atiśa (Dīpaṃkaraśrījñāna)". *The Journal of the Tibet Society*, 2 (1982), in the press.

8. "Die Auffindung des *Bka' chems ka khol ma*. Quellenkritische Ueberlegungen" [i.e. The Discovery of the *Bka'-chems-ka-khol-ma*. Critical Considerations of Sources]. *Proceedings of the Csoma de Koros Symposium, Velm-Vienna*, in the press.

9. "The Hymn of Praise in Eighty Verses. The Earliest Literary Source for the Life of Atiśa". *Atiśa Dipankar Millennium Birth Anniversary Celebration Souvenir*. Calcutta : Bauddha Dharmankur Sabha 1983, in the press.

A critical survey of the books named above is given by : Hahn, Michael, "Leben und Wirken des Atiśa. Ein Forschungsbericht" [i.e. Life and Activities of Atiśa. A Report on Investigations Undertaken]. *Göttingische Gelehrte Anzeigen*, 233. Jahrgang, Heft 3/4 (1981), pp. 307-323.

ON THE THEORY OF NUMBER AND *PARYĀPTI* IN NAVYA-NYĀYA

BIMAL KRISHNA MATILAL

There has been some controversy about the notion of *paryāpti* as a relation among the modern interpreters of Navya-nyāya. Even the exponents of Navya-nyāya, such as Gadādhara, Jagadīśa and Mathurānātha, were not unanimous about the exact interpretation of *paryāpti*. The problem is of course related to old Nyāya-Vaiśeṣika theory of number. A number has been treated as a quality or a quality-particular (*guṇa*), an ontological category, and hence, according to the received doctrine of the Nyāya-Vaiśeṣika ontological scheme, it must be said to reside in the things or substances (counted one, two, three and so on) by a connector that is called inherence or *samavāya* in the system. But that is the beginning of our trouble. For one thing, items other than substances are also counted as one, two and three and the technical notion of *samavāya* would not be available for uniting numbers with such numbered items. For another, if for example duality inheres (i.e. resides by 'inherence') in two things counted as two then it must inhere also in either of them separately, and hence we must tolerate the oddity of saying that, of a pair, say the sky and the earth, the sky has duality!

The first problem is usually avoided by Nyāya by constructing a 'chain' relation. When we count qualities, actions or universals rather than things having properties, we do it on the basis of such 'chain' relations. In other words, we connect such numbers as two or three with the qualities and actions through the intermediary of the substances having them. This 'chain' relation may be variously formulated and in the context of "two qualities" it is technically called '*svāśraya-samavētatva*' or locus-cum-inherence. This explanation is tolerated as long as we take a very generous view about 'residence'. For Two-ness or duality does not actually *reside*, according to this explanation, in the qualities counted, but is connected with them because it resides in the substances (or substance) where these properties reside. This explanation

can be called in question, but I shall leave this problem here for the present.

Faced with the second problem, some exponents of Navya-nyāya have suggested that we should talk about two different ways by which numbers are connected with things numbered. One is the relation of inherence. To understand this we may think of a similar situation of a particular taste (*rasa*) residing by inherence in a substance like a mango. The taste inheres in the mango pervasively such that a part of the mango is also the place where the taste resides. Similarly, if duality inheres in the sky and the earth when counted as two it would be wrong to say in one sense that duality does not inhere in the sky at that time. In other words, just as in the case of the mango taste inheres also in its part, duality belonging to the two, the sky and the earth, must inhere also in one (part). This of course does not allow us to say that the sky is two for that would obviously be a false awareness and hence a false sense but we may say "The sky has two-ness or duality (*dritva-vat gaganam*)" for it would be a verbal report of a correct awareness (for which the argument has already been given). This is one of the exception to the general rule by which the "has" relationship is easily transformable into an "is" relationship. Consider :

"A has B-ness" is equivalent to "A is B". But "The sky has two-ness" is not equivalent to "The sky is two". The second way of connecting numbers with the numbered items is by a connection that would allow only such expressions as correct "The sky and the earth are two", "two sticks" and "three mangoes" but would not allow such wrong inferences :

1) "Three mangoes"

therefore 2) "Three-ness resides in these (three) mangoes." and therefore 3) "Three-ness resides in each (of those mangoes)"

The connection called *pariyāpti* is posited as a relation that allows passage from 1) to 2) but blocks the passage from 2) to 3). This relation is thus supposed to distinguish itself from inherence. Three-ness or the number three is connected with all three items together (counted as three) by this relation and not with just one of them. It is an "all or nothing" sort of connection. The problem is also connected with the peculiarity of the Nyāya-Vaiśeṣika theory of number, as we shall see below. In sum : numbers (like two-ness, three-ness), by inherence relation,

reside not only in the things numbered jointly but also in each member of the group by the same token, by *paryāpti* relation they can reside in the numbered things grouped together, not in the individual members in the same way or by the same token¹.

This is however not equivalent to Frege's definition of number as set of sets. Viz. the number two is the set of sets of two things. There is however very distant resonance here with the distinction made in the Western tradition between the membership relation (of element, with the set) by virtue of which either of the two elements is said to be a member of the set of those two things and the relation of member two defined as a set of all sets of two things to its member sets. The number two or duality (two-ness) can also be seen as a property belonging to the totality consisting of two things. Now if this means that duality belongs to the totality of two things without belonging to either elements of the totality, then we seem to come very close to postulating the *paryāpti* relation. One however need not make too much of this superficial similarity. D. H. H. Ingalls was the first to point this out². But his account was sketchy and incomplete. Perhaps, it was also based upon a misunderstanding of the exact significance of the *paryāpti* relation in the Navya-nyāya programme for analysis of cognitions. Superficial similarity, it seems, had misled Ingalls into ascribing a significance to the *paryāpti* relation which was not there³. D. C. Guha has put the matter in the right context. His account of *paryāpti* relation is fairly correct and properly contextualized although it is unfortunately loaded with Navya-nyāya (Sanskrit) technical terminology⁴. Guha rightly points out that the technical vocabulary of involving *paryāpti* is resorted to so that the number of delimiting properties (*avacchedaka*) on one side can be exactly matched by the same number of delimiting properties on the other side, they should be neither more nor less.

This needs some explanation. The pervasion (*vyāpti*) relation is formulated as one of co-location of *s* (*sādhya*) with *h* (*hetu*) provided the delimiting property of being such as *s* is not the delimiting property of the absenteehood of an absence which (absence) is colocated with *h*. In the usual example of inferring fire (our *s*) from smoke (our *h*) there is pervasion of smoke with fire because delimiting property of being *s*, firehood, is not the delimiting property of the absenteehood of such

absences as absence of pot or absence of cot that are colocated with smoke. Now it is possible to say that absence of all (kinds of) fire or the absence of two (kinds of) fire (i.e. grass-fire and non-grass fire) is also colocatable with smoke. If this is so, then the delimiting property of such absenteehood would be all-ness belonging to all types of fire or duality belonging to the two kinds of fire. These properties, all-ness of duality, are however pervader of firehood. That is, firehood does not reside anywhere when such properties are not present. They occur in various bodies of fire, and so does firehood ! This upsets the previous formulation of the 'pervasion' relation. For the said delimiting property of the absenteehood must include, according to Raghunātha's explanation, not only such pervader properties as all-ness or duality but also those properties that are pervaded by them, viz. firehood in the present case. Now firehood is also the delimiting property of *s*, not different from it. Hence the above formulation fails.

To avoid this problem, Raghunātha has added that the said delimiting property (of the absenteehood) should be such that it should occur in the same and equal number of places or substrata as does any other pervaded property (such as firehood). Compare⁵

Svasamānavṛttikatvam

This is further explained by Raghunātha as *sva-paryāpty-adhikaraṇa-paryāpti-vṛttikatvam*.

The said delimiting property should be such that it should be the adjunct of such a paryāpti relation as would be delimited by that very property as would also delimit the subjuncthood (*anya-yogita-adhikarana-tā*) of the paryāpti relation of the would be pervaded property (of the said delimiting property). Now firehood cannot be the pervaded property of the said delimiting property such as all-ness or duality (in such absences as "all kinds of fire are absent" or "both kinds of fire are absent"). For firehood exists in each individual body of fire by *paryāpti* relation while the said duality or all-ness cannot so exist by *paryāpti* relation. When we say, "this is one body of fire" (or "this is one pot") both firehood and unity exist in the particular (referred to by "this") by *paryāpti* relation the residence being delimited by the particularity of that particular (*idam-tva*). When we say "These are two bodies of fire" both duality and firehood exist in those two particulars taken together by *paryāpti* relation.

ignty of the nation in a harmony of the emperor and his people on the deeper spiritual levels of a shared awareness : it was a 'Grand National Temple'. When the old capital at Nara was abandoned and a new capital was established at Heian-kyo (modern Kyoto) in A.D. 794, the Tōgi temple was an integral part of the metropolitan masterplan. It was "intended to invoke the protection of the divinities and thereby to assure the peace and prosperity" (Sawa 1972 : 130) of the kingdom. It was placed in charge of Kōbō daishi himself, the great master who introduced Shingon Buddhism with its central deity of Vairocana. The temple was significantly termed Kyō-ō-gokoku-ji 'temple for the protection of the state', which popularly came to be known as the Tōji (tō=east, ji=temple) as it was built on the east side of the city gate. The temples of Vairocana seem to have gained national dimensions as means of preempting threat to the security of the nation and securing protection of the head of the state. The Chandi Sewu demanding enormous resources must have been envisaged by a mighty king of the Śailendras for the peace and security of his person and of his realm, in an ever-continuing process of stabilisation of his dynasty. The continuity of the terrestrial maṇḍala or realm was affirmed in being consecrated by an eternal mahāmaṇḍala or cosmogram of Vairocana : *maṇḍalārthe mahāmaṇḍalam* as we may put in Sanskrit. The inscribed stone of A.D. 792 found in the ruins of Sewu may have to be reconsidered in a new light.

THE NAÑJUK BRONZES

Ever since their discovery in 1913 from desa Chandi Reja near Nañjuk (Kediri, East Java), these 90 bronzes have been the subject of study. Krom (1913 : 59ff.) studied 40 of them and at once came to the conclusion that they constituted a group. Bosch (1929 : 109ff.) rightly recognised them as the central Vajradhātu-mahāmaṇḍala and he identified the pūjā-devis and four Saṅgraha-devis. He was precluded from the identification of more statuettes by the absence of "original Japanese pictures" wherein the attributes could be seen clearly in "minor details of importance". Kempers (1959 : 63-64 pl. 168-171) added no new identifications, but reproduced exquisite pictures of Gītā, Dhūpā, Puṣpā and Vajratikṣṇa. So far the principal image of the group with four faces defied identification. Krom (p. 64) felt that it does not represent

Vairocana but a special hypostasis of Mañjuśrī. The Dutch scholars had compared the group only with Japanese iconography which shuns multifaced deities in favour of one-faced anthropomorphy.

The Chinese and following them the Japanese chose the one-faced, two-armed Vairocana from the Vajra-sekhara-tantra. The Nīṣpannayogāvalī specifies the four-faced Vairocana as the main type, with an alternative variation as the one-faced Vairocana who was taken up in the East Asian tradition. The Indonesian and Tibetan traditions kept faithfully to the original Indic texts. The credit goes to K. W. Lim (1964 : 337) who rightly perceived that the central deity belongs "to the Vajradhātumaṇḍala of the Ānandagarbha-type". Ānandagarbha is one of the three fundamental commentators on the Tattvasaṅgraha, the mūla-tantra or basic scripture of the yoga-tantras. The Nāñjuk bronzes must have formed part of a 37-deity Vajradhātu maṇḍala of bronze statuettes. The repetition of the same deity in the Nāñjuk hoard may indicate that they originate from a metalcaster's atelier or a monastic storehouse. Some of them contain gold plates which indicates that they were consecrated. One of them bears an 'indecipherable inscription' (Fontein 1971 : 151). It may be in pre-Nagari and contain bijākṣara(s). Anyway, it can be deciphered only after careful scrutiny. The photographs of all the 90 statuettes of Nāñjuk in the Museum Pusat at Djakarta should be published, even without identifications. Their identity can now be established with all the Tibetan data at our disposal and also with the large-size reproductions of the prints of all the deities in the nine sections of the Japanese Kongōkai-mandara in the author's *Esoteric Iconography of Japanese Maṇḍalas* (size 38 × 56 cm). The importance of this series can hardly ever be overemphasised. Along with the Chandi Sewu niches, it constitutes an important proof of the predominance of the Vajradhātu-maṇḍala of the yoga-tantras in the Buddhism of Indonesia. The whole collection merits closer scrutiny than has been done so far. It may yield more secrets of Indonesian art or newer directions in the classical archaeology of Indonesia.

The foregoing survey leads us to two conclusions : (i) The dominant form of Buddhism prevalent in Indonesia was the yoga-tantra whose basic scriptures were the Tattvasaṅgraha and its explanatory Vajrasekhara-tantra. (ii) Both these texts and their ancillary exegetical tradition were also in high vogue in India, particularly, in the south of India, around Kanchi, whence yoga-tantra

Buddhism was carried to East Asia as well as Indonesia. Kanchipura was a great seaport of India, as stated by Hsüan-tsang (Walters 1905 : 1.227). It was from here that Vajrabodhi the son of the royal preceptor of the Pallavas whose capital was at Kanchi, travelled to China in 719 on board a Persian merchant vessel. He had taken with him the Vajraśekhara-tantra which was lost in the confusion of the fatal storm on the high seas, in which 29 ships out of 30 were lost. Only an abridged version of the Vajraśekhara survived, which Vajrabodhi translated into Chinese later. The yoga-tantras must have played quite a role in South India. It would not be strange, if the Borobudur were a major maṇḍala of this denomination. It is no coincidence that the Nāgarakṛtāgama 77.3 by Prapañca (A.D. 1365) enumerates the Buḍur as one of the important sanctums of the Vajradhara Buddhists (*kasugatan kabajradharan*) which was registered in the state archives (Pigeaud 1960 : 1.59 text, 3.89 transl.). It is noteworthy that Buḍur is without the prefix *bara*.

On the basis of the Nāgarakṛtāgama, and the actual discovery of vajras on small sheets of gold, Bosch had clearly surmised, as early as 1920, that the Borobudur pertained to the Vajradhara sect (NBG. 1920 : 52 ff., TBG. 67/1929 : 173 ff.). This was confirmed by W.F. Stutterheim (1956 : 14) who repeated in 1929 that the Borobudur "must have belonged" to this sect. In the 1920s and even up to our day it was not possible to correlate the Vajradharas with a specific Tantric system, and much less so the architectural manifestation of their philosophical expression. The Vajradhara Buddhists were those who followed the yoga-tantras ; their Lord was Vajradhara, while the Lord of the anuttara-yoga tantras was Mahāvajradhara, who emanates all the deities in the Guhyasamāja-tantra (Wayman 1977 : 124). The distinction is relevant to the precise understanding of the Nāgarakṛtāgama which is using 'vajradhara' as a specialised technical term.

As indicated by the Nāgarakṛtāgama, Buḍur was the main element of the compound Bara Budur. So *bara* should have a generic connotation of a sanctum. Already the possibility of *bara* being derived from *vihāra* via Malay *biyara* was mooted by Poerbatjaraka and Stutterheim (Moens 1951 : 332ff.). The linguistic difficulties inherent in the transition from *biyara* to *bara* have always stood in the way of its universal acceptance. But, along with the word *vihāra* there was the collateral form *vahāra* which may be a mongerel term or an intentional change (*vahāra* from

**avahāra*, like *agrahāra* 'a religious endowment') to distinguish a tantric Buddhist monastic establishment from a usual Buddhist monastery. The use of *vahāra* (pronounced *bahāra*) is attested in the famous *Naw-bahār*, the renowned Buddhist monastery at Balkh which was visited by the Chinese pilgrim Hsüan-tsang in the seventh century, and was damaged by the Arabs in A.D. 663-4 (EI. 1960 : 1.1001 s.v. Balkh). "The term *Naw-bahār*, moreover, likewise derives from Sanskrit *nava vihāra* 'new monastery'. Some 1500 sq. km. of lands were attached to it, and it was the centre of national resistance when attacked by Mucāwiya about A.D. 663-4" (EI. 1960 : 1.1033a, s.v. al-Barāmika or Al Barmak). Later authors like Yakūt 4.819 and Ibn Khallikān 3.198 make it a Zoroastrian fire-temple, which can well be a misunderstanding, but also an indication that *homa* may have been conducted here as a part of tantric worship.

Vajrayāna was prevalent in Central Asia as is attested by vajrayāna texts in the Iranian-speaking domains of Khotan, like the *Adhyardhaśatikā prajñāpāramitā* (Bailey 1965 : 27-39, Williams 1973 : 116-117) which is positively a text of the yoga-tantric system. The copy of the Khotanese *Jātakastava* was written for Ca Kimā-sani ambassador of the Khotanese kings Viśa sūra (967-977) and Viśa Darma (978-982) to increase the merit of householders of vajrayāna. A bilingual Sanskrit-Khotanese scroll records a conversation between a person from Tun-huang and a Khotanese bhikṣu going to worship mañjuśrī in China. The Tun-huang resident asks "which book do you like". The bhikṣu from Khotan replies : "I like vajrayāna" (Bailey 1938 : 529, Williams 1973 : 117). Khotan played a leading role in disseminating Avataṃsaka to China and the iconographic type of Vairocana in Khotanese and Chinese art corresponds to the Avataṃsaka-sūtra (Williams 1973 : 120).

The name of the Sogdian town of Bokhārā (also spelt Bukhara) is derived from the Sanskrit *vihāra* (EI. 1960 : 1.1293), which is made doubly probable by the discovery of a *vihāra* near Numidikath, the predecessor town of Bokhārā (Frye 1956 : 106ff). The pronunciation Bokhara with o is a dialectical variation in which survives the ancient *vahāra*. The form Bokhara is attested in c. 1666 as 'Bokara prunes' (Bernier, ed. Constable 118, Yule/Burnell 1903 : 16. s.v. Aloo Bokhara). In India, the Persian *ālū-bokhara* has *bo*°, which should be the classical pronunciation of Iran, with

its ancestry going back to times prior to the Runic Turkish (8th cent.) Uigur and Mongolian *buqar*. The Sogdian form, which we should expect at Bokhara, was *varhaār*. Paul Pelliot (1959 : 1.108 s.v. Bucara) is uncertain about the derivation of *varhār* from *vihāra*. It may go back to a hypothetic *varahār* 'the splendid (*vara*) monastic endowment (*hāra*), on the analogy of Sanskrit *agrahāra* 'royal donation of land to Brahmins ; land or village thus given, MBh.' (MW).

In the earliest Western document of 1221, the name occurs as *Bachara* (Pelliot 1959 : 1.108). The lost colloquial Indic from *vahāra* developed into *bahār* and *bokhār*, *a* being pronounced as *o*. Pelliot's discussion about the etymology of Bokhara does not take into account the possibility of the Indic from *vahāra*, which is enhanced by the Newari term *vahāl* for the Buddhist temples of vajrayāna in Nepal. The Indonesian *bara*, pronounced in Modern Javanese as *boro*, can be traced back to *bahāra* < *ba'āra* (by the elision of *h*) < *bāra* (coalescence of the two *a*) < *bara* (influenced by *vara* 'excellent, supreme'). In modern Tamil, *h* is a glide for hiatus, *Murahari* for Mura-ari (Murāri). Conversely the *h* in *bahāra* was considered an epenthetic and dropped. Compare the modern Balinese *Mendra* for *Mahendra*.

"The most famous Naubihār was the one at Balkh which Hsüan-tsang, c. 630, calls Nava-saṅghārāma, New Monastery, but there were a number of other Nav-bihār in Sind, at Samarkand, at Bokhara, and even at Ray (east of Tehran). I must confess that I do not see why we have only "New" monasteries in Iran (Pelliot 1959 : 1.108). The 'New' Monasteries should have belonged to Tantric Buddhism which was the 'New' Way in contradistinction to Theravāda and Mahāyana. Bokhara is mentioned in Chinese texts in the 5th century as Niu-mi, transcription of its ancient name Nūmi j. Its first mention as Buqaraq (with the ancient Iranian final -k) is in the 8th century Runic Turkish inscriptions of Orkhon, by which time Tantric Buddhism should have become prevalent and might even have supplanted other schools. Amoghavajra (705-774) who translated yoga-tantra texts into Chinese may have been helped by Hui-lin from Kashgar. Besides, he mentions five disciples from Samarkand (K'ang), Tashkent (Shih), Tukhara (Lo), Betik (Pi) in his Memorial of A.D. 767. In another Memorial dated A.D. 768 he requested permission to tonsure three disciples from Tukhara, and Ishtikhan (Chou 1945 : 329-330). The great

Chinese Tantric Master, Hui-kuo (746-805) the guru of Kōbō Daishi, had Pien-hung of Java as his disciple. Śubhakarasiṃha (637-735), who was the first great master of vajrayāna in China, has bequeathed to us the Rita-sangara-gobu-shingan (Jap. pronunciation) which illustrates six maṇḍalas of Rta-saṃhāra or Tattvasaṅgraha. The drawings were done by his Central Asian, more precisely, Iranian-speaking, disciple as is evident from the Sassanoid coronets of the deities and from the colophon *ācārya-śrī-śaubh[ik]asya surataḥ* (Lokesh Chandra 1965: §50) where *surataḥ* is the Iranian word *surat* 'picture'. The presence of vajrayāna in Central Asia in its form of yoga-tantra is the denomination to which the 'new' monasteries should have belonged.

Central Asia has preserved a distinction between earlier monasteries with their austere statutory and ascetic discipline and the new tantric monasteries in their splendour of ritual and graceful images of gods 'eternally young' and of charming goddesses.

Birūnī (Athār al-bāqiya, ed. E. Sachau p. 206) considers *behār* and *farār* synonymous, but Al-Khwārizmī (Maḥāṭiḥ al-'u'lūm p. 123) clearly distinguishes them semantically: "*buhār* is the idol temple of India and *farār* is the idol-temple of China and upper Sughd or Sogdiana" (Frye 1956: 115 n. 52). Al-Khwārizmī in all probability preserves a distinction in the denominational context of the two terms which though confused later on were once contradistinctive: *farār* must have denoted the usual, that is non-tantric, monastery and *behār* must have been a monastic centre dedicated to the new Tantric system, with the daily homa ceremonies and the vast pantheon of Tantric gods and goddesses giving it a distinctive character. The homa, a regular feature of Tantric Buddhism, is still performed early every morning in some Shingon monasteries which continue the traditions of the tantras introduced in Japan in A.D. 806. The homa ceremonies must have been responsible for confusing the Nawbahar with a Fire Temple (Yakūt 4.819, Ibn Khallikān 3.198, E.I.1.1033). The grace and charm of the many Buddhist images, particularly of the enchanting Tantric goddesses in all their concupiscence must have given the equation "ideal beauty = Buddhist image", which was an established fact in the East Iranian world. Even when Buddhism had faded away, early Persian poetry continued to cultivate abstract mental forms poignantly recalling ideals of the grace of Buddhist

statues. 'Ayyūqī in his novel entitled *Varge va Golshah* (Tehran 1956 : 6) writes of his beautiful heroine that "she was... a Buddha in a temple full of offerings.' Further on we find the crescendo in stanzas 2138-2142 where she is addressed as *Bot* (Buddha), then *lo'bat* (statuette), and finally as *nowbahar*, the Buddhist monastery which was well known for its graceful statues in Iranian literature (both in the Persian and Arabic languages) upto the time of Yāqūt in the 13th century. In early Persian poetry, Young beauty whether masculine or feminine, is constantly referred to by the poet or addressed by various characters in their romance as *Bot* (Buddha). Early Persian literature as we know it, is a creation of the Eastern Iranians and till the 11th century Persian poetry was exclusively written in Khorasan, Sogdiana and adjacent lands—areas once steeped in the Buddha. The Buddhist overtones of Persian poetical vocabulary were memories of a time when the images were loaded with their full emotional and aesthetic import. No wonder that the metaphor of the *Bot* is the term that the description of beauty spontaneously calls for.

The second element of the name, Buḍur, has been unconvincingly derived from Malay *buduā*, or Skt. Buddha. Moens (1951 : 333) has rightly come to the conclusion that *-ur* is the South Indian suffix for a city, settlement. In Tamil *putu/budu* means 'new'⁶ and *putūr* refers to a 'new settlement'. There is a town called *Budoor* (PTG. 1954 : 125a) in the Chingleput district in South India, and eight towns with the name Pudur (PTG. 1954 : 566) and Pudur-Palayam, Pudur-Ramnad, Pudur-Uthamanur, not to mention about a hundred city names with Pudu—. Thus the word Buḍur is the Tamil term for a new settlement, and Bara Budur means the New Monastery or Nava-vihāra like its Central Asian counterparts of the contemporary period. South Indian Kanchi had become a major centre for the dissemination of yoga-tantric Buddhism which was a development of the Avataṃsaka system. The last portion of the Avataṃsaka is the Gaṇḍavyūha where the spiritual journey of the young aspirant Sudhana takes him to a number of South Indian cities—thus clearly establishing the locus of the final phase of Avataṃsaka.

The syndrome of literary, linguistic, and archaeological evidence from Indonesia itself makes it evident that yogatantric Buddhism was prevalent during Śailendra rule in Java in the 8th and early 9th century. A prominent aspect of this type of Buddhism was

the representation of maṇḍalas in various media, culminating in their most impressive magnificence and enduring permanence as architectural monuments. The complex of Mendut-Pawon-Borobudur could have been no exception.

Scholars have rightly found it perplexing to consider the Borobudur as a stūpa (Fontein 1971 : 21). It was the brilliant exposé of Paul Mus and others that lent an air of certainty to the interpretation of Borobudur as a stūpa, and that so overshadowed subsequent discussions that another possibility was precluded. Occasional expressions of the maṇḍala—like plan of the Borobudur were mooted but they faded out in the absence of 'architectural maṇḍalas'.

Moens (1951 : 335, 341) had explicitly compared the Borobudur with the Mongolian *khoto-mandal* 'city maṇḍala', but missed to recognise its implications as an architectonic maṇḍala, with the precise identification of every detail. This could not be done unless we had a comprehensive, or at least a representative, collection of maṇḍalas. The maṇḍalas had not been studied in the West except that a few were known as aesthetic glammers. An appropriate understanding of the maṇḍalas as coherent cosmograms incorporating a system of thought in art, as visual dharma, had not yet dawned. Even today the complex integrality of each and every element of the maṇḍalas based on their original sources in specific tantric texts has yet to be discovered as a scientific fact to become part of academic consciousness. In the year 1967, the writer brought out for the first time the line drawings of the most comprehensive series of 132 maṇḍalas of all the classes of tantras, as parts 13, 14, 15 of *A New Tibeto-Mongal Pantheon*. They stem from Tibet, but they incorporate all the known Classical traditions of Sanskrit tantras in their diverse variations.

Detailed investigations in the direction of defining the Borobudur as a maṇḍala were suppressed by the stunning logic of Mus who could find nothing specially Tantric about it : "Le Barabudur n'est pas spécialement tantrique. S'il l'est ce n'est qu'avec tout le Mahayanisme" (Moens 1951 : 336). As late as 1971, Jan Fontein 1971 : 37 reinforced the same view with greater emphasis : "The doctrinal contents of the sūtras which were chosen to be illustrated on the walls of the Borobudur suggest that Śailendra Buddhism was a relatively pure type of Mahāyāna without many Tantric accretions." So far the Borobudur has seemed to present no

single text but an eclectic conglomeration of the representation of scenes from varied originals ranging from the Karmavibhaṅga, Jātakas and Lalitavistara to the Gaṇḍavyūha of the Avataṃsaka-sūtras. They fall into a logical sequence, but there is a lurking feeling that they lack the authority of a classical pattern, or the sanction of a precedent in tradition, in their totality. The overall impression persists that the Borobudur was the creation of an ingenious mind coordinating divergent elements in a brilliant manner, meditating in the beauties of Menoreh as the Indonesian legend has it.

It would help to elucidate the precise character of the Borobudur and to identify it as a maṇḍala, and that too a specific one, if we consider some architectural maṇḍalas to affirm the concept of pura-maṇḍala and if we correlate the textual descriptions to their actual representation as monuments. Now let us refer to some yoga-tantric monastic centres like Tabo, Alchi and Gyantse Kumbum.

The Tattva-saṅgraha (Toh. 479) was translated by Śraddhākara-varman and Rin-chen-bzañ-po (c. 958-1055). The Tattva-saṅgraha embodies the maṇḍala of Sarvavid Vairocana. Rin-chen-bzañ-po founded monasteries at Tabo and Alchi to introduce the new maṇḍalas of this system. The Tabo (Tib. Tapho) monastery is situated on the north bank of the Spiti river in Himachal Pradesh. It was enlarged and repaired by king Byaṅ-chub-ḥod. Life size stucco images of the deities of the Vajradhātu-maṇḍala are set around the walls in a rectangular arrangement. This temple is a "complete three-dimensional maṇḍala" (Snellgrove 1957 : 185, 66-67) and none other of such antiquity survives. The layout of the 33 deities can be in G. Tucci's *Indo-Tibetica* (1935 : 3/1.26 fig. 2). It is unusual in being unlike the circular arrangement described in the texts (diagram in Tucci 1935 : 3/1.60) and found in Tibetan scrolls and also in Japanese paintings. The central image of Vairocana is four-faced with the two hands in samādhi-mudrā (Tucci 1935 : 3/1.32). Beneath the images, along the left wall, there are frescoes narrating the story of Nor-bzañ or Sudhana. On the right wall is the life of Śākyamuni to represent the journey of the bodhi-sattva to the perfection of buddhahood (Snellgrove 1957 : 188).

Besides the central temple (Gtsug-lag-khañ), Tabo has seven other temples, with Byams-paḥi lha-khañ = Maitreya-devālaya, a temple dedicated to Maitreya. It is situated alongside the main

temple on the northern direction. The image of Maitreya is pralamba-pāda⁷ with his legs hanging down. There are a number of stūpas in the Tabo complex. In the earlier form of the Mahākaruṇā-garbhamaṇḍala of Vairocana, based on the Mahāvairocanābhisambodhi-tantra of the kriyā-tantra division, Maitreya and Avalokiteśvara are found in the central lotus (Tajima:1959 : 66).

The Gsum-tshag temple in the Alchi village in Lower Ladakh houses a gigantic image of Vairocana. It was erected by King Byañ-chub-sems-dpañ in about 1020-50 (Peter 2/2.7) during the life of Rin-chen-bzañ-po. It has a large number of maṇḍalas in frescoes. The Vairocana is four-faced, two-armed, in bodhyagrī mudrā, his colour is white, his symbol : 5-pointed vajra, his vāhana : lion (Lim 1964 : 336). It is an indication that as soon as a tantra was translated and came into vogue its representation as a maṇḍala followed the text immediately.

In the early 15th century the most important of Buddhist maṇḍalas was created at Gyantse, begun in A.D. 1414. It has 706 chapels containing both sculptures and murals, with 108 doors. "The basic construction is that of a gigantic maṇḍala (Karmay 1975 : 27, 34n. 130). It was completed and consecrated in 1427 by the prince of Rgyal-rtse, Chos-rgyal Rab-brtan-kun-bzañ-hphags-pa (1389-1442). This is renowned as the Gyantse Kumbum and it integrates the majority of maṇḍalas of the different tantras. Different media are employed in making maṇḍalas with coloured powders on floors, painting them on canvasses, or some are built into pavilions where the symbols and the images bulge out of the background in a fitting arrangement : those architectonic maṇḍalas are called lölang *blo-laṅs* (Tucci 1956 : 37). The Gyantse Kumbum is a vast architectonic maṇḍala comprising in its unique pantheonic sweep the multiplicity of maṇḍalas. Its architectural composition is five stories of buildings superimposed by a cupola and three-storied campana.⁸ The nine stories (Wen-wu 1961 : 1.53) conform to the pattern of the depiction of Mount Sumeru in Tibetan thaṅka scrolls (Wayman 1973 : 101ff).⁹ The first five stories are the five terraces of the Sumeru mountain. In the worship of a maṇḍala, the first step is evocation of the Sumeru, which is *ādhārotpatti* or generation of the residence, for the *ādheya* or the deity which is invoked to take its residence there. A three-storied eaved palace rests in the clouds atop Sumeru (Wayman 1973 : 108). This is the kūtāgāra of the Sanskrit and Tibetan texts, and the three-storied campana of the Gyantse Kumbum, which is

specially notable for its adherence to the injunctions of the Classical tantric texts in minute details of architectural form. For instance, the *Niṣpannayogāvali* of Abhayākara-gupta which is a fundamental text for the construction of maṇḍalas, makes it clear that maṇḍalas were situated in a *kūṭāgāra* or pavilion atop the Sumeru mountain, with the main deity in the centre and others in their appropriate placements (p. 8, 26, 42 *sumerū pari, sumeru-mūrdhni* 'on the summit of Sumeru').

The maṇḍala pervaded the entire spiritual life of yoga-tantric Buddhism, to such an extent that even the *cham* dances of the Lamaist world reflect in minute details the iconography of a maṇḍala. René de Nebesky-Wojkowitz (1976 : 88), in his translation of the Tibetan dance-manual (*tsham-yig*) of Vajrakīla, says : "The dancers express with their movement nothing else than the iconographic details of Vajrakīla's maṇḍala."

The Chandi Mendut

The Chandi Mendut was constructed by the Śailendra king Indra (782-812). The Inscription of Karangtengah (Casparis 1950 : 39) dated 824, names it as *Veṇuvana : veṇuvanābhikhyam...jinamandiram* in line 21. According to Casparis (p. 204) it is "one complex whole with Pawon and Borobudur", and "chronologically speaking, it is oldest of the three". He further states : "when Indra built the *Veṇuvana*, he realised that he belonged to the Family of the Tathāgata, identified with the Śailendra ancestors. This interpretation, might explain why just nine Bodhisattvas were sculptured on the outside of Tjandi Mendut."

King Indra himself has provided a key to the identification of the Mendut by using the expression 'Tathāgata-kula'. It is a technical term of the caryā-tantras which are classified into three families (*kula*): Tathāgata-kula, Padma-kula, and Vajra-kula (Wayman 1973 : 237). The Tathāgata-kula has two tantras, namely, the Mahāvairocanābhisambodhi-tantra and the Acala-kalpa (Toh. 494, comm. Toh. 2662-9). The Mahāvairocanābhisambodhi-tantra is the source of the Garbhadhātu maṇḍala, which has been known to European scholars in its Japanese version since the last century. The identification of the Mendut with the Garbhadhātu maṇḍala never occurred to anyone because the Sañ Hyañ Kamahāyānikan was utilised to identify (Kempers p. 40) the three central statues as : Śākyamuni

flanked by Lokeśvara and Vajrapāṇi. This text was insufficient to cover the system of Mendut. Moreover its text still awaits a critical edition and the separation of various strata that constitute this compilation from varied sources.

The identification of the central deity in the temple vacillated (and rightly so) between Śākyamuni and Vairocana. Kempers (1959 : 40) himself was conscious that "it is not the 'human Buddha' Śākyamuni who is meant". Though he came very close : "The first is known in Buddhist iconography as Garbhadhātu, the second as Vajradhātu. This system or variety of systems was also known in Central Java", but he was under the impression that "several systems of Buddhist mythology and cosmology" overlapped. This was inevitable in the absence of a precise knowledge that the placement of the statues of deities inside and the reliefs on the walls outside corresponds to a maṇḍala. The use of the term Tathāgata-kula was hardly ever appreciated which makes it certain that the Mendut belongs to this family which is symbolised by the Garbhadhātu maṇḍala.

In the Japanese graphic representation, the Garbhadhātu maṇḍala can be divided into three main enceintes : the first or inner enceinte, the second or middle enceinte and the third or outer enceinte. The inner enceinte comprises four quarters of 1. Universal Knowledge, 2. Vidyādhara (with Prajñāpāramitā in the centre), 3. Avalokiteśvara and 4. Vajrapāṇi. The second enceinte has six quarters of 5. Śākyamuni, 6. Mañjuśrī, 7. Kṣitigarbha, 8. Sarva-nīvaraṇa-viṣkambhin, 9-10. Ākāśagarbha and the allied Susiddhi. The outer quarter of vajras has Hindu deities.

The Mendut temple has :

1. the Five Tathāgatas inside the cella : Vairocana flanked by Avalokiteśvara and Vajrapāṇi. The remaining four Tathāgatas once occupied the niches which are empty today.

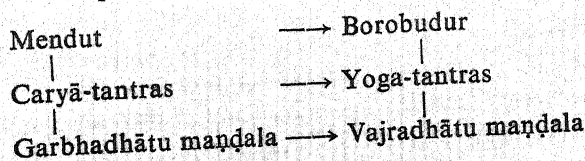
On the four walls outside we find :

2. Eight bodhisattvas in the corners.
3. Prajñāpāramitā in the large central panel on the right wall.
4. Ākāśagarbha/Khagarbha on the large central panel on the left wall.
5. Lokeśvara on the back wall.

The arrangement of the Mendut corresponds to the Japanese maṇḍala as follows :

<i>Mendut</i>	<i>Japanese Maṇḍala</i>
1 The Five Tathāgatas	In the 8 petalled lotus in the centre
2 Avalokiteśvara	Quarter 3
3 Vajrapāṇi	Quarter 4
4 Eight Bodhisattvas ⁶	Four bodhisattvas are in the 8 petalled lotus
	Four bodhisattvas in Quarters 6, 7, 8 and 9
5 Prajñāpāramitā	Central deity in Quarter 2
6 Ākāśagarbha/Khagarbha	Quarter 10 of Susiddhi who represents the merits of Ākāśagarbha
7 The small relief, representing a wheel between two deer, the symbol of the First Sermon at Sarnath	Quarters 1 (Universal Knowledge), and 5 (Śākyamuni)

Mahāvairocana at Mendut is in the dharmacakra mudrā. So also in the Durgati-pariśodhana-maṇḍala : *Śrī-Śākyasiṃho bhagavān Mahāvairocanaḥ suvarṇa-varṇa dhṛta-dharmacakra-mudraḥ* (Niṣp. text 66). The bronze image of Vairocana and Vajradhātviśvarī in the Leiden Museum (no. 2862) has the dharmacakra mudrā. As we have already pointed out, Casparis considers the Mendut to be earlier than the Borobudur, as against the undefined view of Kempers (1959 : 37 pl. 46-61) who says that "Mendut may date from about the same time as Barabudur, i.e. about A.D. 800". The Mendut should have been constructed earlier than the Borobudur. The Mendut represents the Garbhadhātu maṇḍala and the Borobudur the Vajradhātu maṇḍala. The Garbhadhātu maṇḍala leads to the Vajradhātu. The Garbhadhātu represents the caryā-tantras which later on developed into the yoga-tantras. As the caryā-tantras lead to the yoga-tantras, so does Mendut lead to the Borobudur, and its construction is expected to have preceded :



The Twin Maṇḍalas of Garbhadhātu and Vajradhātu are known in Japanese as *ryōbu mandara* that is, the maṇḍalas of both (ryō) the divisions (*bu*) of the caryā and yoga tantras. They had been transmitted to Japan from Kanchi. It is most likely that the Twin Maṇḍalas were prevalent in South India and they were a characteristic feature of vajrayāna in the 8th century. In all likelihood the vajrayāna of the Śailendras was derived from Southern India. There are a number of traces in the Śailendra monuments which stem from Tamil nuances of phonetics and vocabulary. From the ruins of Chandi Sewu a fragmentary inscription bears the words : *tiruraṇu* (Casparis 1950 : 115). Casparis considers it to be the designation of an official. Tamil *tiru* is *śrī* and *raṇu* corresponds to Tamil *rāṇuvam* 'army' (Tamil Lexicon 6.3423). It may refer to king Samaratuṅga, who reigned 812-832 (Casparis 1950 : 201). It could have been his pet family name (*tiru* = *śrī*, *rāṇuva* = *samara*). The small bronze from Chandi Sewu reveals a definite affinity with the main image in the cella of Chandi Mendut (Fontein 1971 : 150 no. 34). It clearly points to a close relationship between Sewu and Mendut temples.

The Inscription of Śrī Kahulunnan dated Śaka 764 = A.D. 842, which is correlated to the Borobudur by Casparis, begins with the date and the day is *canaiścawara* (Casparis 1950 : 86), instead of *śa*. *Cu* in place of *śa* is a common phenomenon in Tamil, where *sani* is *cani*.

A highly significant phrase occurs in the beginning of the two inscriptions :

I line 4

sīmā niṅ kamūlān i bhūmi sambhāra

II lines 2, 3

simā niṅ kamūlān < i bhūmi > sambhara

Casparis interprets this expression on the assumption that Śailendra Buddhism was "orthodox" Mahāyāna, "corresponding to the later treatises ascribed to Maitreya-nātha-Asaṅga, viz. the Mahāyāna-sūtrālaṅkāra, Abhisamayālaṅkāra, and Uttaratānta. It should not be called Tantric, as several of the main characteristics of Tantric Buddhism do not appear in the Śailendra documents" (p. 202). Hence his interpretation of the expression is : "the exact meaning of the term *kamūlān* by which the sanctuary is indicated. Comparison of some loci in Old-Javanese inscriptions suggests that

kamūlān refers to a building symbolizing the origin of a royal dynasty. If we remember that the name of the Çailendra dynasty means "Lord of the Mountain", it is possible to distinguish a clear thread connecting the dynasty with the great monument (p. 202-3). Its "hidden meaning" implies a representation of the preceding Çailendra princes, each in their proper place on the road leading to Buddha-hood, the first ancestor, the "root" (*mūla*) of the dynasty, the Çailendra, "Lord of the Mountain", at the final momentary meditation before obtaining Buddha-hood (p. 204). The name of that sanctuary shows that it must refer to a Buddhistic building, representing the "Accumulation of the elements of Virtue on the ten Stages of the Bodhisattva". There cannot be any doubt that this sanctuary should be identified with Tjandi Barabudur. Next paragraph shows that according to phonological development of the Javanese language the present name is derived from the one mentioned in the inscription of 842, only the name given there is not complete: the full name of the sanctuary must have been Bhūmisambhārabhūdhara, "the Mountain of Accumulation of Virtue on the ten Stages of the Bodhisattva." (p. 202).

Casparis has rightly come to the conclusion that the phrase refers to the Borobudur complex, on the analysis of the village names occurring in the inscription. But his interpretation of the word *kamūlān* has to be viewed in a new light. *Kamūlān* is a homonymic counterpart of *mūla-sthāna* where *kā...* -*an* denote *sthāna*. In tamil this word occurs as *mula-t-tānam* (from *mūla-sthāna*) 'sanctum sanctorum of a temple' (Tamil Lexicon, *Tirumūlaṭṭānam* (*tiru*=śrī + *mūlasthāna*) refers to the sacred shrine of Tiruvārūr (Tamil Lexicon, p. 1913). The renowned North Indian geographic name Multan, which is derived from Sanskrit *Mūlasthāna*, also means '[The City of the] Temple'. In Srilanka too, *mūla*=*ārāma* (Encyclopaedia of Buddhism 3. 22, 24). *Kamūlān* refers only to the sacred complex and has nothing to do with the origins of the Sailendra dynasty.

The compound *bhūmi sambhara* is a proper name, a toponym. It means the 'land/country of the sambhara'. With it we may compare the geographic name Bumi-ayu (Fontein 1971: 149 no. 30) in Brebes, Central Java, whence a bronze of seated Tārā has been discovered with a Sanskrit inscription. It may be noted that the vowel length in the two inscriptions varies—*sambhāra* and *sambhāra*. In Tamil *sambara* refers to the Buddhist community. *Sambara* is

samhvara meaning 'the Buddhist vows'. The transition from *sambara* to *sambhara* was an orthographic variation where *bh* lent the word dignity of hyper-sanskritism. It could also have been influenced by the Buddhist term *sambhāra* (puṇyasambhāra, etc. in the Dharmasaṅgraha §117.) Thus *bhūmi sambhara* meant the land of the sambhara i.e. Indian Buddhists. The whole expression *kamūlān i bhūmi sambhara* means 'a monastic foundation of Indian Buddhists'. It is pertinent to cite the lead-bronze inscription discovered on the plain west of the Borobudur, which refers to a locus on a hill of the southern region (*dakṣiṇāpathasya parvatasthale*). Boechari (Preliminary report on some archaeological finds around the Borobudur temple, cyclostyled paper 1976, p. 11) poses the question "Does this text refer to the Borobudur?" We feel that it does. *Dakṣiṇāpatha* in Sanskrit is South India : the same as *bhūmi sambhara* ; *parvatasthala* refers to the Borobudur, the replica of Mount Sumeru. The Borobudur is in the village Bumi-segoro (Skt. sāgara-bhūmi) which alludes to it as the settlement of people beyond the seas, i.e. India. In stanza 8 of the Kalasan Inscription of Śaka 700 (Sarkar 1972 : 1.36, Casparis 1950 : 186) the Śailendras do term themselves *ārya-santati*. As late as the 11th century, Śailendras had intimate relations with South India : they founded a vihāra at Nāgapattinam, to which the Chola King granted the income of a village for support (Fontein 1971 : 33). We are led to the conclusion that Mendut-Pawon-Borobudur was modelled after the Indic tradition. Explicit specification of this fact emphasises the sanctity of the monastic complex and hints that the introduction of vajrayāna in Indonesia was relatively recent.

Form of the Borobudur

The Borobudur was a vihāra : it is attested by the Inscription of Karangtengah of A.D. 824 (line 15 : *āstām vihāraḥ*, Casparis 1950 : 40). The presence of the vihāra has been proved by archaeological excavations. Its remains were found to the NW. of the monument (Kempers 1959 : 45). In had a number of structures of which the monument now famous as the Borobudur was one, most probably in the centre of the ordering of the entire sanctified space. The same inscription speaks of *vividha-gaṇa-samākrānta-murttiś-ca meruḥ* in the previous line 23 : namely, the gods reside on the Meru/Sumeru, an implicit allusion pregnant with significance for the structural definition of the Borobudur.

The pyramidal architecture of the Borobudur with its square terraces, three superimposed concentric platforms, crowned by a finale—without a clearly marked entrance but flights of steps on four sides—has puzzled scholars who have tried to designate it a stūpa. Kempers (p. 43) admits that “it is a very complicated specimen of the stūpa”. The Western scholars have employed terms like caitya, stūpa, dhātugarbha (dagob), and stūpikā promiscuously, and Sumeru has been absent in their architectural terminology. Sumeru has been relegated to cosmology. These terms have precise connotations and they should be distinguished : e.g. dhātugarbha (dagob) is the innermost sanctum in a stūpa where the relics are deposited, and does not connote the decorative architectural elements as employed by Kempers (1959 : 48 etc.).

The plan of the Borobudur is : 5 terraces, supporting 3 circular platforms adorned with 72 latticed campanulae, surrounding a larger central stūpa on a final and ninth terrace (Kempers 1959 : 42-43, Fontein 1971 : 16, Frédéric 1965 : 158). The first five terraces are the five storeys of Sumeru, as we find in Nepalese temples, in Tibetan texts, on *thangka* paintings, and as is well known from the oral traditions of Indonesia (Fontein 1971 : 14) that the Chandi is a Sumeru.

In Nepal, the tradition of temples on a stepped pyramidal base has continued down to our times. The best known of the ‘pagoda-style’ temples or *dega* is the five-storeyed temple of the Newars at Bhaktapur is Nyatapola *dega*. It stands on and above a five-stepped pyramid. The five super-imposed platforms diminish in size from bottom to top and are linked together by staircase which is situated on the southern façade. On the topmost platform is the temple, built from brick and wood, with five superimposed roofs of decreasing size and similar form. The *garbha-gṛha* is situated within.

“Another temple, dedicated to Śiva in Khauma tol, previously rose above five stepped terraces. Today the base alone remains, consisting of the five stepped terraces. The upper part, where the *garbha-gṛha* used to be, was destroyed by earthquakes, the most violent of which took place in 1934. According to the inscription which is to be found close by the temple, it was built in 1667 by Jagatprakāśa Malla.

“One should also draw attention to another temple which is known as Fasi Dega and is dedicated to Śiva. It has the same five-terraced pyramidal base. The upper part was destroyed during the

1934 earthquake. Fasi Dega and the Khauma tol Dega have bases of stone, and not of bricks as is the case of Nyatapola.

"All the above-mentioned temples have entrances situated on the southern façade and a staircase which links the terraces together. On either side of the staircase on the southern façade of Nyatapola dega are to be found ranks of huge guardians : at the bottom are the giants Jaya Malla and Bhaṭṭa, athletes in the king's service and reputed to have the strength of ten men : above them are two elephants ten times stronger yet ; then, continuing this decimal progress on in muscular vigour, two lions, two tigers and the goddesses Singhinī and Vyāghrinī". (A. Macdonald & Anca Stahl, Newar Art, in press).

Prof. Wayman (1973 : 104 pl. 9, 102-109) has illustrated the configuration of the Sumeru on a Tibetan thaṅka scroll (compare Matsunaga 1969 : 39). It has five terraces which constitute Mount Sumeru (p. 108). Above the five-storeyed Sumeru is a cloud atop which rests a three-storeyed palace. On top of the palace roof is a tiny structure. This becomes clear in Mkhasgrub-rje's (A.D. 1385-1438) fundamentals of the Buddhist tantras. In his prescription of the generation of the residence (*ādhārotpatti*) he says : "In the middle of this [ocean], he imagines a four-sided Sumeru mountain, adornedf on all four sides with rows of stairs made [respectively] of gold, silver, sapphire (*indranīla*), and amber, all over which spring up wish-granting trees (*kalpa-vṛkṣa*) decorated with a thousand fluttering victory banners.

"Above it, he is to imagine a canopy (*vitāna*) [appearing] in an instant. On top of that [canopy], he generates the complete characteristics of an eaved palace (*kūṭāgāra*) and generates within its various seats ; and he may also generate within the palace stūpas of the varieties 'victorious' and 'radiant.' (Lessing/Wayman 1968 : 175 . Thereafter the deities are invited to be resident (*ādheya*) in the sanctified space.

This scheme corresponds to the Borobudur as follows :

- 5 terraces = five storeys of the Sumeru
- 3 circular platforms = base of kūṭāgāra (palace)
- 1 large central finial = stūpa

There must have been a wooden pavilion (*kūṭāgāra*) atop the three circular platforms. We know that Borobudur had wooden structures which have perished. Octagonal stone bases of the foundations of the monastic building have been found to the west of the

monument. The discovery of bronze nails points that the building was of wood (Frédéric 1965 : 160). The pinnacle seems to have been octagonal and ended in a number of horizontal incisions, three parasols in succession and a jewel at the top (Kempers 1959 : 48). The horizontal incisions in the pinnacle must have held the wooden kūṭāgāra, and other architectural end-elements.

As indicated above and as will be corroborated further on, the Borobudur is a maṇḍala dedicated to Vairocana of the Vajradhātu. The abode of Vairocana is atop Sumeru as it is clearly pointed out in the Niṣpanna-yogāvalī in the chapter on the Vajradhātu-maṇḍala that Lord Vairocana is seated in the vajraparyāṅka posture in the centre of the kūṭāgāra situated on Sumeru : *Sumerūpari kūṭāgāraṇi tasya madhye...viśvāmbhojasya kaṇṭhikāyām bhagavān Vairocana*... (text p. 44 § 19). In the Japanese tradition of the Kongōchōkyō (Vajrasekhara-tantra) Vairocana ascended Mount Sumeru to reveal the maṇḍala to sentient beings (Matsunaga 1969 : 203, Sumeru depicted on p. 39). In his work on the fundamentals of the tantras, Mkhas-grub-rje says : After completing the five abhisambodhi, he became samyaksambuddha Mahāvairocana, proceeded to the summit of Mount Sumeru and proclaimed the yoga tantras (Lessing/Wayman 1968 : 27, 29, 35), that is, the Tattvasaṅgraha, its explanatory Vajrasekhara-tantra and other tantras. Moens (1960 : 386), has spoken of the Paradise of Vairocana, the Sahālokadhātu, on top of the rūpadhātu in the context of the Borobudūr-Mendut-Pawon complex. Yet the general feeling in the scholarly world has tended to consider the Borobudur as 'the great stūpa' (Frédéric 1965 : 160), an interpretation which had insuperable difficulties in terms of the classic type, like the absence of a clearly marked entrance. Instead it has four entrance-stairs in the four directions as is appropriate to Vajradhātu Vairocana maṇḍala situated on the four-sided Sumeru mountain, adorned with rows of stairs on all four sides (Lessing/Wayman 1968 : 175). The round terraces atop the Sumeru are the foundations for the Classic type of the abode of Vairocana, which is *śūnya bhuvana* or a round structure : *śūnyam bhuvanaṁ varṣulākāram bhavati śūnya-bhuvanam* (Dharma-kośa-saṅgraha, p. 1).

The Vairocana Buddhas on the three circular platforms are in latticed stūpas. There is a clear difference between the stūpas on the first and second rows and those on the third. The pinnacles of the first two rows are supported by square bases, while those of the

third by octagonal bases. The perforations in the first case are lozenges, and those in the other are squares (Kempers 1959 : 48) :

1st & 2nd rows	square base	lozenge-shaped perforations
3rd row	octagonal base	square perforations

This divergence can be traced back to the Avataṃsaka sūtra which gave rise to the earliest iconographic type of Vairocana in the art of Khotan in Central Asia and China. In a passage describing cosmological interrelationship it is stated that transformations of the Buddha exist sometimes in the form of Mount Sumeru, ... of circle-nets, ... of all square things, ... and of all sorts ornamentation (Williams 1973 : 120), ... circles, forms neither square nor circular, and triangles. Thus geometric forms are specifically mentioned in the text as forms in which the Buddha sometimes manifests. These geometric elements are actually painted on the body of Vairocana in the paintings of Khotan. In Khotanese paintings octagonal forms appear on the chest. In the wall-painting Bal. D circles and triangles are scattered over the body of Vairocana. Two interlaced triangles are shown on the stomach of the mural painting Bal. 094, and a triangle on the lower arm of Kha. i. C. 00118 preserved at the National Museum at New Delhi. The square bases and holes, octagonal bases, and lozenge holes reflect the geometric epiphanies of Vairocana enunciated in the Avataṃsaka. The lozenges are the placement of two triangles base-to-base, or a variation of the interlaced triangles.

The 72 latticed stūpas enshrining the Vairocana Buddhas on the three circular platforms of the Borobudur represent the architectonic transcreation of the stūpas depicted on the body of Vairocana in the Avataṃsaka tradition as can be seen in the mural fragments from Khotan. The mural fragment Kuduk-tol 025 shows stūpa with a high superstructure, the legs of Bremen A 16164 have a very elongated stūpa of several stories with harmikā, the left lower leg of panel D. IV. 4 abv. (British Museum) shows a stūpa with high superstructure, and so on (Williams 1973 : 119). What were oddities as representations on the body of Vairocana himself were integrated into the grace of an architectural composition by the brilliant architect that Guṇadharmā was, who conceived the Borobudur in the contemplative solitudes of Mount Menoreh (Frédéric 1965 : 161), as an unparalleled monument transcreating adoration along the path of unending time.

The Thousand Buddhas on the Borobudur

A glance over the complete set of 132 Tibetan maṇḍalas of the *Rgyud-sde kun-btus* comprising all the classes of tantras reveals that only the Vajradhātu-maṇḍala has the Thousand Buddhas shown in the outer enceinte. The Tibetan Vajradhātu maṇḍala, which follows down to every minor detail the Tibetan translation of the Sanskrit text, is the *classical maṇḍala* with 1037 deities.¹¹ In the *Brahmajāla-sūtra* (Jap. Bommōkyō, Chin. Fan-wang-ching. Nj. 1087 = T. 1484) translated by Kumārajīva in A.D. 406 it is said : "I am called Vairocana (Jap. Roshana) and live in the ocean of the lotus-world...I incarnate myself into one thousand Buddhas." (T. 24.997c quoted by Matsunaga 1969 : 163). The Thousand Buddhas were, thus, an integral aspect of Mahāvairocana as early as the fourth century.

In the Tibetan Buddhist canon, the Kanjur, the Bhadrakalpika-sūtra (Toh. 94) which describes the Thousand Buddhas, precedes Lalitavistara (Toh. 95) the biography of Buddha : At the Borobudur too the Lalitavistara is depicted besides half the Thousand Buddhas.

The Japanese Vajradhātu mahāmaṇḍala follows the classical norm in representing each one of the Thousand Buddhas (Lokesh Chandra 1972 : scheme II, Tajima 1959 : 159) in the second enceinte.

Frédéric (1965 : 162) counts the Buddha statues at Borobudur as follows :

	Buddhas in the	mudrā	resemble
92	East	bhūmi-sparśa	[Akṣobhya]
92	South	varada	[Ratnasambhava]
92	West	dhyāna	[Amitābha]
92	North	abhaya	[Amoghasiddhi]
64	fourth gallery	vitarka	
72	latticed stūpas	dharma-cakra	[Vairocana]
504			

These 504 Buddhas, when doubled, make the sacred number of $504 \times 2 = 1008$. As already shown before, about a thousand statues are actually provided for at Chandi Sewu. Following a cue from Goris, Stutterheim (1956 : 59-61) tried to explain "the curious composition of the figure 504" in the framework of the Sañ Hyañ Kama-hāyānikan. The "numerological mysticism" which he worked out

into a complex series of figures on page 60 is ingenious but does not correspond to an actual system.

A Javanese chronicle does refer to the thousand statues at Borobudur : "a story occurs in a fragment of a Javanese chronicle published by Poensen (BKI. 1901 : 287) which pertains to the adventures of a Javanese crown-prince who died in the year 1758. In this story it is said that the crown-prince, after a life of dissipation, went to the Barabudur to visit the thousand statues of this sanctuary, after which visit he soon fell ill and died. See also Brandes, *Twee oude berichten over B.*, in *TBG.* 44(1901) : 73-80 (Stutterheim 1956 : 16 n. 20a).

It is interesting to note the pattern of variation in the depiction of the Thousand Buddhas in the Bhadrakalpika-sūtra. In the Lhasa xylography (a copy of which is preserved at the International Academy of Indian Culture) of this sūtra which was woodprinted at the Zhöparkhang printery of the Potala palace of the Dalai Lama as the authentic version, we find the illustrations of all the Thousand Buddhas with their names in versified stanzas. They are represented as Buddhas in the dharmacakra, bhūmisparśa, varada, dhyāna and abhaya mudrās—in this very order. This mudrā sequence is repeated 200 times to arrive at the number of a thousand, without any other change. At Borobudur too, the same pattern is represented and to use the nomenclature of the Pañca-Tathāgata, namely, Akṣobhya, Ratnasambhava, Amitābha, Amoghasiddhi and Vairocana, is inappropriate and misleading as each of the Thousand Buddhas has an individual name though their iconography is restricted to five forms only which is common to the Pañca-Tathāgata. The description of the Borobudur has to undergo a total terminological revolution for the correct identification of the whole as well as of its constituent elements.

The discussion of the 504 Buddhas has been muddled and messed up by two factors :

(1) As early as 1836, Humboldt had suggested that the Buddhas on the first four main walls pertained to the Pañca-Tathāgata system (wrongly termed the Five Dhyāni-Buddhas by Hodgson). This has been accepted till now, as only this single set of Five Tathāgatas has been known till very recently. It has held sway till today in spite of the difficulties it poses in the identification of the two Tathāgatas on the fifth main wall and on the circular platforms. To reinforce this quinary system, every effort was made to explain away the mudrās of the two Tathāgatas against all available sources, and even to point

the possibility of a lost phase in Buddhism. "Krom started out from the Dhyāni-Buddha system of Nepal and Tibet and tried to force the iconography of the Dhyāni-Buddhas on Barabudur into this frame by tampering with the mudrās." (Leeuw 1965 : 395).

(2) The use of Sañ Hyañ Kamahāyānikan, which is not an integral text but a collection of fragments, was pressed beyond its limited potentialities. This is clear to my predecessors. Prof. de Leeuw says that Stutterheim "based himself on the preconception that the Buddhist system of Barabudur was exactly the same as that expounded in the Sañ Hyañ Kamahāyānikan. In this respect he therefore made the same mistake as Krom, taking a given system as his starting-point and trying to fit the iconography of Barabudur into it. However, when adhering less strictly to the Sañ Hyañ Kamahāyānikan he put forward certain improvements in the explanation of Barabudur's iconography, such as his suggestion that the images on the first main wall do not represent four Dhyāni-Buddhas, but either four Mānuṣi-Buddhas or four forms of Gautama." (Leeuw 1965 : 395).

Variation in the five Tathāgatas

Though the number of Five Tathāgatas remained constant, their names, distinguishing features and placement has varied in different textual traditions.

At the beginning of the fifth century, the four Buddhas Akṣobhya, Ratnaketu, Amitāyus and Dundubhisvara surround a central Buddha in Dharmakṣema's translation (A.D. 397-439) of the *Suvarṇaprabhāsa-sūtra* (T. 16. 335, 345) and in Buddhābhadrā's (worked A.D. 408-429) translation of the **Buddha-dhyāna-samādhi-sāgara-sūtra* (T. 643, vol. 15 p. 688 ; Nj. 430).

By the end of the seventh century, Śākyamuni is the central Tathāgata, Lokanātha replaces Dundubhisvara in the north and Ratnasambhava takes the place of Ratnaketu in the south, in the 9th chapter of Bodhiruci's (worked A.D. 693-713) translation of the *Amoghapāśa-sūtra* (T. 20. 270). In the 22nd chapter (T. 20. 346b) of this sutra another set of five Tathāgatas is explained : "Vairocana (centre), Akṣobhya (east), Ratnasambhava (south), Lokeśvararāja (west) and Amoghasiddhi (north)".

In A.D. 709 Bodhiruci translated the **Ekākṣara-buddhoṣṇiṣa-cakravartī-sūtra* (T. 951, Nj. 532) which describes five Tathāgatas :

Sākyamuni (centre), Ratnaketu (east), Saṃkusumitarāja (south), Amitābha (west), and Akṣobhya (north) (T. 19.247ab).

In the Garbhadhātu maṇḍala the five Tathāgatas are : Mahāvairocana (centre), Ratnaketu (east), Saṃkusumitarāja (south), Amitābha (west), Divya-duṇḍubhi-megha-nirghoṣa (north). This maṇḍala is based on the Mahāvairocanasūtra which was translated into Chinese by Śubhakarasiṃha in A.D. 724.

The five Tathāgatas in the Vajradhātu maṇḍala are : Mahāvairocana (centre), Akṣobhya (east), Ratnasambha (south), Lokeshvararāja *alias* Amitāyus (west) and Amoghasiddhi (north). This maṇḍala follows the Tattvasaṅgraha whose first chapter was translated into Chinese by Amoghavajra in A.D. 753.

On p. 57 is a conspectus of the Five Tathāgatas in the texts cited above. It shows that they were not immutable in a fixed standard, but subject to change, which later on came to be systematised in different traditions of various denominations. So whenever we speak of the Five Tathāgatas in the Nepalese tradition as recounted by Hodgson in the very infancy of Buddhist studies, we have *not* to take it as *the* system, but as *a* system among many, in a multiplicity of contexts.

It has not been realised so far that there are other systems of Buddhas, for example, the Four Buddhas in the Vajradhātu maṇḍala of the Japanese Shingon sect, whose mudrās are depicted in the Shingon-mikkyō-zu-in-shū 2.51-54 adhiṣṭhāna of Four Buddhas : 2.51 Acala in the east, 2.52 Ratnasambhava in the south, 2.53 Amitāyus in the west, 2.54 Amoghasiddhi in the north, 2.61 garland to the Four Buddhas (Lokesh Chandra/Sharada Rani 1978 : pref. 15), 2.256 Catur-Buddhādhiṣṭhāna. Furthermore, so far none has cared to study the iconic structure of the depiction of the Thousand Buddhas in the Chinese and Tibetan traditions, besides their representation in the outer enciente of the Vajradhātu mahāmaṇḍala. In some Chinese and Tibetan traditions, the Thousand Buddhas are repeated without any distinction : the same form is 'stencilled' over a thousand times. In fact there are a thousand epithets like the thousand appellations of Viṣṇu in the Viṣṇu-sahasra-nāma. In the Lhasa xylograph of the Bhadrakalpika-sūtra referred to above, there is a distinct quinary pattern which is repeated, though the names of each of the Thousand Buddhas are separate and distinct.

The Vajradhātu becomes a mahāmaṇḍala because of the Thousand Buddhas, which is its unique and contradistinctive attribute in

	centre	east	south	west	north
Suvarṇaprabhāsa-sūtra *Buddha-dhyāna-samādhi sāgara-sūtra	Tathāgata	Akṣobhya	Ratnaketu	Amitāyus	Dundubhisvara
Amoghapāśa-sūtra 9th chapter 22nd chapter	Śākyamuni Vairocana	Akṣobhya Akṣobhya	Ratnasambhava Ratnasambhava	Amitāyus Lokeśvararāja	Lokanātha Amoghasiddhi
*Ekākṣara-buddhoṣṇiṣa- cakravartī-sūtra	Śākyamuni	Ratnaketu	Samkusuṃmita- rāja	Amitābha	Akṣobhya
Garbhadhātu maṇḍala	Mahāvairocana	Ratnaketu	Samkusuṃmita- rāja	Amitābha	Divya-dundubhi megha-nirghoṣa
Vajradhātu maṇḍala	Mahāvairocana	Akṣobhya	Ratnasambhava	Lokeśvararāja or Amitāyus	Amoghasiddhi

the world of tantric maṇḍalas. The Vajradhātu mahāmaṇḍala added to the already existing five forms of the Buddhas a sixth one with the dharmacakra mudrā. These six forms of Buddhas were repeated 168 times to the auspicious number of 1008. That is why there are 504 Buddhas, and the niches and stūpas enclosing these 504, symbolically make up the requisite double number : $504 \times 2 = 1008$. Thus the six forms of Buddhas on the main walls and circular terraces do *not* stand for Akṣobhya, Ratnasambhava, Amitābha, Amoghasiddhi,—, and Vairocana, but are simply six morphological types to delineate the 1008 Buddhas in 168 cyclic repetitions in sixes ($168 \times 6 = 1008$).

The imposition of the nomenclature of the Pañca-Tathāgata raised the insurmountable problems of identifying the fifth Buddha in the fourth gallery, which should have been Vairocana in the "clear and systematic arrangement of Barabudur's Dhyāni-Buddhas which works up towards a hierarchical climax" (Leeuw 1965 : 392-3). But this Buddha is in vitarka-mudrā which is never the mudrā of Vairocana. Vairocana is either in dharmacakra or dhyāna or bodhyagri mudrā. If the fifth Buddha was supposed to be Vairocana then how could the sixth Buddha on the circular terraces be explained with his dharmacakra mudrā which is appropriate to Vairocana ? Foucher suggested, without any supporting evidence, that the sixth Buddha is Śākyamuni which constitutes a "completely unacceptable anticlimax" (ibid.) to the consecutive phases of spiritual development. Krom (ibid.) suggested that this sixth Buddha is the Ādi-Buddha Vajrasattva, which has been rightly and convincingly refuted by Prof. van Lohuizen-de Leeuw (1965 : 394). She has identified the sixth Buddha as Vairocana "in his capacity of Lord of the five Dhyāni-Buddhas" (p. 405) : (i) because of his dharmacakra mudrā, (ii) whereas in the Buddhist texts of Java like the Sutasoma, Kuñjarakarma, and Sañ Hyañ Kamahāyānikan Vairocana is the supreme Buddha, and (iii) furthermore because several bronze images of Vairocana have been found in Java. She tries to find a justification for the six Buddhas at Borobudur in the following statement based on the outdated work of Getty : "When the group of five Dhyāni-Buddhas was extended into a six fold system some Mahāyāna sects raised Vairocana, originally the Dhyāni-Buddha of the centre, to the higher position, giving him the name of Mahāvairocana. This system is not only found in Tibet and Nepal but in Japan also, where the Hossō, Tendai, Kegon and Shingon sects regard Vairocana or Dai-

nichi Nyōrai as 'the Supreme Buddha' " (Leeuw 1965 : 405). In Japan, the word Mahavairocana (Japanese Dai ni chi) is a synonym of Vairocana. He is the central deity of both the Garbhadhātu and Vajradhātu maṇḍalas, and therein he is the *one of the Five Buddhas* : seated in the centre with the other four Buddhas in the four directions. At the Borobudur too, the five Buddhas do not occur in their capacity as Pañca-Tathāgata. It has been perceived by Prof. de Leeuw on p. 403 : "Krom was completely right when he rejected the system of five Dhyāni-Buddhas as the basic frame of Barabudur's iconography," though she has ignored it on p. 405 cited before. Prof. de Leeuw identified the fifth Buddha on the fourth gallery as Samantabhadra, though she admitted that "these various possibilities will have to remain mere speculations for the time being" (p. 416). Mus (1932 : 351) made a forthright assessment that the whole situation is teeming with "difficultés insolubles." It was never realised that the neglected iconography of the Thousand Buddhas, hitherto relegated to iconic tautology, held a key to the Borobudur.

The reliefs of the final section of the Avataṃsaka, namely the Gaṇḍavyūha and Bhadracarī, represent just the earlier phase of the tantras dedicated to Vairocana. They are in no way to be construed as the glorification of Samantabhadra as the supreme Buddha as has been done by Prof. de Leeuw, taking a clue from Bernet Kempers : "Thus the devotee circumambulating the galleries of Barabudur followed Sudhana from stage to stage on his way to spiritual wisdom. Together with him he would finally find the supreme master, the Great Bodhisattva Samantabhadra, under whose guidance Sudhana enters Absolute Reality." B.K.I. (121.408). Earlier S. Toganoo had also suggested in his *Rishukyō no kenkyū* 'Researches on the Nayasūtra' (Koyasan 1930) that the Borobudur is a maṇḍala of Samantabhadra-Vajrapāṇi (*Bibliographie bouddhique* IV-V/1931-33.97b).

To this day, the Bhadracarī has been preserved in the Shingon school in Sanskrit recitations. The full title of Bhadracarī is Samanta-bhadra-caryā-praṇidhānarāja, that is, the great vow of Samantabhadra, where he is an aspirant in quest and not the Supreme Buddha. His very role of the Seeker in the Bhadracarī indicates that at the Borobudur we have not to see in him the Ādi Buddha. Samantabhadra occurs as one of the eight bodhisattvas in the Garvadhātu maṇḍala. In the Vajradhātu maṇḍala he appears five times in subsidiary positions : the samaya-maṇḍala (Esot. 508),

sūkṣma-maṇḍala (Esot. 593), pūjā-maṇḍala (Esot. 666), Trailokyavijaya-karma-maṇḍala (Esot. 760), Trailokyavijaya-samaya-maṇḍala (Esot. 837). Thus it is certain that his role in the Avataṃsaka, carya-tantras and yoga-tantras is a minor one, and has nothing to do with the exalted position of the Ādibuddha Samantabhadra in the Tibetan Nyingma sects, which was a later development.

Central Image of the Borobudur

The Central image of the Borobudur enshrined in the final stūpa has not been found, and its absence has engendered a continued controversy. The intrusion of the unfinished image has complicated the issue. Its solutions have varied according to the interpretation of the type of Buddhism represented by the Borobudur.

In the early period of its discovery it was "a huge mass of stones enveloping the top of a hill and containing only a small room in its central dagob" (Kempers 1959 : 17). Further on pages 48-49, he summarises the situation in the following words : "Inside the central dagob there is a large cella with a smaller one above it. During the whole of the 19th century there was a large hole in the walls of the dagob. An unfinished statue of a Buddha has been found inside the cella. It is exactly like those of the other Buddha Images which show the attitude of 'touching the earth' (in the niches facing the east). Much controversy has arisen around this 'unfinished Buddha'. According to some it represents the Supreme Buddha manifesting himself incompletely in this manner. On the other hand there is reason to suppose that the sculptor left his work unfinished because of a mistake he made in carving one of the hands. Anyhow, it seems to be too much of a failure to figure as the Supreme Buddha. It may have been introduced into the cella through the hole in its walls for some reason unknown to us. The same goes for a number of smaller objects found in the same place, such as a small 'kēris' (kris)." We agree with Kempers that the unfinished statue was secretly introduced in the cella to compensate the disappearance of the golden image of Mahāvairocana enshrined therein, though Stutterheim (1956 : 56) feels : "Hoepermans' statement is no more than an insinuation directed against the Resident and the Regent, reproaching the former with the theft of a small golden image found during the investigations, and the latter

for having played the role of henchman by having this substituted by the first Buddha statue to be found in the vicinity”.

The central image of the Buddhist vihāra at Nāgapattinam was made of solid gold, and the *sthapati* who made this image and enshrined it in a complex construction so that it could not easily be stolen, had gone to Indonesia. The Vaiṣṇava saint Tiru-mangai went to Indonesia to get the secret of the construction of the vimāna and on return it enabled him to steal the golden image for the repairs of the Raṅganātha temple. The details have been given earlier at the outset of this paper. A golden image was a lure as early as the 9th century, for howsoever noble a purpose, and why should it not be in the 19th century. It is not an isolated phenomenon. “According to unconfirmed stories dating from the colonial period, there were villages near the Dieng Plateau which paid their taxes in golden statues, the most precious produce of their soil.” (Fontein 1971 : 40). We do not know their whereabouts.

The *sthapati* referred to above could have been responsible for the creation of the central image of the Borobudur. Even if there was some other *sthapati*, he could have hailed from India. The *sthapati* were in the Land of Gold, in Suvarṇabhūmi, and they would have insisted on a statue of solid gold for such a magnificent monument as the borobudur, when there was a precedent in the main image of the vihāra at Nāgapattinam being of gold. A bronze statue of Vairocana, covered hammered gold leaf, has been found from Sidorejo (Central Java). It can be assigned to about the ninth century. Significantly enough it bears a stylistic affinity with South Indian sculpture (Fontein 1971 : 148 no. 27). The cumulative effect of the evidence adduced so far indicates that the central image should have been of solid gold and consequently small in size. We have already pointed out that the Vajradhātu Vairocana was the main deity of Śailendra Buddhism. In the Old Javanese kakawins Arjunavijaya 26.4 and Sutasoma 32.10, 139.9 Jinapati Vairocana is characterised by his hands in the bodhyagrī mudrā which is exclusive to the Vajradhātu Vairocana. The Prince Sutasoma is compared to Vairocana several times in the Sutasoma Kakawin (Santoso 1975 : 618-620) which testifies to the high popularity of Vajradhātu Vairocana in the Classical periods of Indonesian history. The entire architectural composition of the Borobudur down to the minute details of the geometric designs of the lattices of the stūpas on the circular platforms, favours, sustains

and strengthens the idea that it is an *ādhāra* for the maṇḍala of the Vajradhātu. Before proceeding further it may be specified that there are two major steps in tantric worship: (i) generation of the residence for the deities (*ādhārotpatti*) and (ii) evocation of the deities to be residents (*ādheya*) therein. Descriptions of the generation of the residence for the deities is given in the tantras, which has been summarised by Mkhas-grub-rje (Lessing/Wayman 1968: 175) in a vivid manner. From this we can say that the entire structure of the Borobudur, including the now vanished kūṭāgāra, was the residence of *ādhāra* for the deities. It was to be followed by the second stage of the deities taking residence herein. Who were these deities? They were the 37 deities of the Vajradhātu maṇḍala: the central Vairocana surrounded by 36 deities. The images of these 36 deities must have been fashioned out of seven precious metals. They should have been placed in the now-vanished wooden kūṭāgāra. The dichotomy of the *ādhāra* and *ādheya* was reflected in the construction itself: *ādhāra* was a fixed and permanent construction in stone and the *ādheya* or the images of precious metal were portable to 'take' residence in every ritual—true to hieratic requirements.

The 'unfinished image' is a sculptor's error, without any place in the scheme of the Borobudur. All the confusion has arisen because scholars were not aware of the basic fact that NO unfinished, faulty, or broken image is ever installed in a sacred place. The haze deepened as the Buddhism of Borobudur was appraised as an eclectic conglomeration: so efforts could be made over the years to devise a system to fit in the 'unfinished image'. There were no criteria to arouse suspicion. With the precise definition of Sailendra Buddhism as yogatantric, we no longer need be puzzled by the 'unfinished image' or the vacuum created by the absence of any image to have the honour to be in the centre.

Correlation of the Reliefs to the Central Deity Vairocana

The Borobudur has reliefs drawn from the Karmavibhaṅga, Lalitavistara, jātakas, avadānas and from the Avataṃsaka text of the Gaṇḍavyūha ending in the Bhadracarī. A question arises about the relationship of these reliefs to yogatantric Buddhism whose central deity is Vairocana. How did the ideas represented

in the reliefs culminate in the yoga-tantras? Karma-vibhaṅga represents the most fundamental level of the operation of karmic cause-and-effect. The jātakas and avadānas are the perennial effort of the Buddhas and bodhisattvas to liberate from the bonds of karmic causation, and Lalitavistara is the immortal story of Buddha Śākyamuni's discovery of the noble eightfold path. The whole represents the graduated path from the inexorable laws of karma (Karma-vibhaṅga), its cessation by the path leading upto Buddha Śākyamuni as propounded in the Lalitavistara, to its sophistication in Avataṃsaka (Gaṇḍavyūha) where Sudhana the eternal pilgrim is exhorted by Mañjuśrī to resort to Samantabhadra whose great vow (Bhadracarī) is to reach the Paradise of Amitābha (Ratnakūṭa), and transcending them all is Supreme Buddha (Jinapati) Vairocana become Abhisambuddha.

As we have pointed out already, the monastic complex of Tabo in Himachal Pradesh in India was consecrated to Vajradhātu Vairocana by Rin-chen-bzañ-po in the 10th century. The central maṇḍala hall is dedicated to Vairocana. Beneath the 37 images of the maṇḍala there are frescos of the life of Śākyamuni on the right wall, and those of the pilgrimage of Sudhana along the left wall. The entire Tabo complex is surrounded by a wall with 108 stūpas. Both the series of the life of Śākyamuni and the journey of Sudhana are also sculpted at Borobudur. A number of stūpas have been found at a distance from the Borobudur. These may have topped the ramparts of the Borobudur complex.

The Avataṃsaka-sūtra was translated into Chinese three times in the fourth, seventh and eighth centuries. The three versions are distinguished in the Sino-Japanese tradition by the number of fascicules, as '60, 80, 40 fasciculi Hua-yenching (Jap. Kegonkyō) or Avataṃsaka'.

1. Translated by Buddhabhadra and others during the Liang dynasty (A.D. 317-420) in 60 fascicules, Nj. 87, T. 278.

2. Translated by Śikṣānanda during A.D. 695-699 in 80 fascicules, with a preface by the Empress Wu Tsö-t'ien (A.D. 684-705) who sent an envoy to Khotan to procure the Sanskrit text. It is fuller than the first translation by Buddhabhadra.

3. Translated by Prājña during A.D. 796-798 in 40 fascicules. It is a translation of the last chapter of the Avataṃsaka, namely, the Gaṇḍavyūha which ends with the Bhadracarī.

Takakusu (1956 : 112) says that the Avataṃsaka is "a sūtra in which the mystic doctrine of the Buddha Mahāvairocana is minutely described". The last chapter of the Avataṃsaka is the Gaṇḍavyūha which describes the pilgrimage of young Sudhana to fiftythree worthies, both religious and secular, to "realise the principles of dharmadhātu." Thus the integral relationship of the pilgrimage of Sudhana and Vairocana goes back to an early period, at the latest, the fourth century when the first Chinese translation of the Avataṃsaka took place. Vairocana is the lord of the Kusuma-tala-garbha-vyūhāṅkāra-lokadhātu (Rengedai sekai, JEBD (1965 : 17b) in the Avataṃsaka and also in the Brahmajāla-sūtra (T. 21, Nj. 554) which was translated into Chinese by Shiken during A.D. 223-253.

The Avataṃsaka school had two main representations of :
 (1) the image of Vairocana as the Buddha of this school, and
 (2) the narrative paintings or sculptures of the pilgrimage of Sudhana. Michèle Pirazzoli-t'Serstevens says that the Avataṃsaka iconography of Vairocana "first appeared at Khotan, passed on to Kuca (Kizi 1 Cave), then appeared in cave no. 425/P. 135 of Tun-huang (early sixth century)". She goes on to describe a Chinese image of the Sui dynasty (A.D. 589-618) at the Musée Guimet : "The right hand makes the gesture of abhayamudrā ; the left hand, that of varṃudrā. On the front of the cloak are modelled the sun, the moon, two apsaras, Mount Mern (formed of a rock beaten by waves and borne by interlaced dragons), a Buddhist sanctuary, and scenes of hell. On the back, which is flatter, other personages modelled in relief evoke the Six Ways (the damned, preta, wild animals, asura, humans, and Buddha), as well as Kṣitigarbha (King of Hell) sitting on a throne. The theme is borrowed from the Avataṃsaka Sūtra which makes Vairocana the master of all the universe." (Auboyer 1975 : 107). The earliest representations of Vairocana originated in the Avataṃsaka, which were to evolve later on into the Vairocana of the yogatantras.

The evolution of Buddhist thought leading from the earliest through the One Vehicle of Avataṃsaka to the Vajradhātu Vairocana in the Shingon School has been propounded by Kōbō Daishi at the beginning of the ninth century, as Ten Stages of spiritual progress (not to be confused with the daśa-bhūmi). They are cited below in the words of Takakusu (1956 : 149) :

"The critical classification of the Buddha's teaching proposed

by Kōbō Daishi is in reality the Ten Stages of spiritual development :

1. Various paths of blind life driven by the instinctive impulse (the stage of common people) ;
2. The Vehicle of human beings striving to have a moral life (the stage of Confucianism) ;
3. The Vehicle of heavenly beings striving to have a supernatural power (the stage of Taoism and Brahmanism)—these three are the worldly Vehicles ;
4. The Vehicle of the direct pupils of the Buddha (śrāvaka) striving for a higher spiritual life as in Hinayāna Schools, Kusha [= Abhidharmakośa], and Jōjitsu [= Satyasiddhi] stage of direct disciples) ;
5. The Vehicle of the self-enlightened ones (pratyeka-buddha) enjoying self-enlightenment yet falling into egoism ;
- 6-7. The doctrine of Three Vehicles, holding the three Vehicles as real (the stages of the Sanron [= Mādhyamika] and Hosso [= Yogācāra] Schools) ;
- 8-9. The doctrine of One Vehicle holding the one Vehicle as real (the stages of the Kegon [= Avataṃsaka] and Tendai Schools) ;
10. The Diamond Vehicle as held by the Shingon School.

These stages, coming one above the other, show the timely progress of the human mind."

The above scheme of Kōbō Daishi is a striking parallel to the various sculptural components of the Borobudur which represent the different strata of Buddhist thought leading to the Vajradhātu Vairocana of the yoga-tantras—all harmonised by a consummate architectural genius.

The Avataṃsaka is a mahāvaipulya-sūtra. In the Tibetan Kanjur the full title is Buddhāvataṃsaka nāma mahāvaipulya-sūtra (Toh. 44). So also in the Chinese translation, which can be rendered verbatim as mahāvaipulya Buddhāvataṃsaka sūtra (Nj. 87 = T. 278, Nj. 88 = T. 279). The Mahāvairocana-sūtra (T. 848 = Nj. 530, Toh. 494) is in the direct line of development with the Avataṃsaka. In spite of its being the fundamental text of the caryā-tantras, its title does not bear the term tantra, but vaipulya-sūtrendrarāja : Mahāvairocana-ābhisambodhi - vikurvī - ādhiṣṭhāna - vaipulya-sūtrendrarāja nāma dharma-paryāya (Toh. 494). While *vaipulya* puts it in the direct line of descent from the Avataṃsaka, *sūtrendrarāja* indicates a further and higher stage of development. It is another glimpse into the intrinsic

proximity of the Avataṃsaka and the maṇḍalas of Vairocana : reflected in the depiction of Sudhana's pilgrimage at Borobudur as a historical substratum in the onward spiritual journey to the maṇḍala of Vairocana atop.

In the Tibetan tradition (Wayman 1973 : 232-3) too the transmission of the entire cycle of sūtras leading to the cycle of tantras was divided into :

- A. (1) the biography of Śākyamuni in terms of 12 Acts (*mdzad-pa bcu-gñis*),
 - (2) compilation of the Word by the great śrāvakas in the Hina-yāna tradition,
 - (3) compilation of the Word in the Mahāyāna tradition.
- B. Sūtras which show principally the pāramitā-yāna fall into four groups :
 - (1) The Vinaya-vastu arising from the first promulgation (*bkaḥ*) which was the Wheel of the Law concerning the Four Truths (Toh. 1-7).
 - (2) The Prajñā-pāramitā side arising from the intermediate (promulgation) which was the Wheel of Law concerning lack of characteristics (i.e. the Void, S. śūnyatā) (Toh. 8-30).
 - (3) The Ratnakūṭa and Avataṃsaka arising from the last (promulgation) which was the Wheel of the Law concerning perfect discrimination (i.e. yoga experience) (Toh. 44 Avataṃsaka and 45-93 Ratnakūṭa).
 - (4) The numerous sūtras which pertain in some measure to all three Wheels (of the Law), arranged in a single major class (Toh. 94-359).
- C. Tantras which show principally the vajrayāna fall into four groups :
 - (1) Anuttara-yoga-tantra (Toh. 360-478)
 - (2) Yoga-tantra (Toh. 479-493)
 - (3) Caryā-tantra (Toh. 494-501)
 - (4) Kriyā-tantra (Toh. 502-827)

Thus we see that the evolution of the manifestation of Buddhism over the expanse of historic time was not disregarded, but was treasured in a structural systematisation of the Tibetan Buddhist Canon (Kanjur) and it was reduced to writing by Bu-ston Rin-chen-grub, and by others who followed him. It is detailed in an authoritative survey in Mkhas-grub-rje's masterly work, which is available to us in

the English translation by Prof. Ferdinand D. Lessing and Alex Wayman, a work whose potential is yet to be realised for the history of the development of Buddhism. Mkhas-grub-rje sets forth the development into three yānas : the position of the śrāvakas, the teachings of the pāramitā school in four stages, and finally the teachings of the mantra school again in four stages. It is a *sine qua non* to understand the philosophical moorings and ritualistic context of the Borobudur which integrates in stone the same path of ascension : śrāvaka-yāna—Karmavibhaṅga, jātakas and avaḍānas of Śākyamuni ; pāramitā-yāna—Avataṃsaka (Gaṇḍavyūha and Bhadracarī) ; mantra-yāna—Vairocana.

Function of the Borobudur

The Borobudur symbolises not only Buddhist cosmology, thought and ritual, but also the dynasty that erected this magnificent monument to Indonesian glory : the Śailendras 'Kings of the Mountain' (Frédéric 1965 : 160). Śailendra authority faded away from Java not long after A.D. 824 (Casparis 1950 : 200). The instability must have been felt quite early and the Mendut and Borobudur must have been erected to preempt such an eventuality. The Mahāvairocana-sūtra was the basis for the dhāraṇī on the protection of the realm (Nakamura 1976 : 79). Much more so was the role of the Vajradhātu maṇḍala for a cakravartin (Tajima 1959 : 152). The Mendut representing the Garbhadhātu maṇḍala of the Mahāvairocana-sūtra and the Borobudur symbolising the Vajradhātu maṇḍala of the Tattvasaṅgraha were intended to consecrate and stabilise the cakravarti sovereignty of the Śailendras in a syndrome of philosophy, ritual and architecture of the Twin Maṇḍalas of Vairocana, who is also known as Ekākṣara Cakravartī.

We have parallels to this in the Hindu and Buddhist world. In A.D. 587 Prince Shotoku built the Shitennojō Temple at Osaka in honour of the Four Lokapālas to overcome the rival Mononobe and Nakatomi clans (Matsunaga 1969 : 40 n. 102). In Japan, Ichiji Kinrin or Ekākṣara Cakravartī, is a form of Vairocana which is identical with the Vairocana described in the Kawi text Saṅ Hyaṅ Nāgabāyusūtra (Bosch 1929 : 131). The polychrome wooden statue of Ekākṣara Chakravartī dating to the 12th century from the Chusonji monastery at Hiraizumi (Japan), 75.6 cm. high, has actually all the attributes

specified in the Sañ Hyañ Nāgabāyusūtra *śuddhavarṇāya, vajraparyāṅkopasthitāya, bodhyagrīmudrānibaddhāya, śimhāsanopasthitāya* : he is of white colour, seated in vajra posture, with the hands in bodhyagri mudrā, seated on a lion throne. It is a work of exquisite beauty which can be realised only by a viewing of the masterpiece or its superb coloured reproduction by Toshio Fukuyama in his *Heian Temples : Byōdō-in and Chuson-ji* (Tokyo 1976, pl. 22 opposite page 29). The Chusonji monastery was founded by Kiyohara in a vision of grand proportions. The lion-throne (śimhāsana) was the emblem of universal dominion (cakravartī). In the Indo-Tibetan tradition too there is a maṇḍala of Cakravartī (RaghuVira/Lokesh Chandra 1967 : 13.8, pl. 31). It is one of the five subsidiary maṇḍalas of the Pariśodhana-tantra (Toh. 483-486), whose primary (mūla) maṇḍala pertains to the 37-deity Sarvavid Vairocana.

Chandi Pawon

Between Mendut and Borobudur, in a straight line stands the Pawon, 1150 metres from Mendut and 1750 metres from Borobudur. It is also called Brajanalan. It is "often regarded as a porch-temple to Barabudur, dedicated to Kuvera, the god of riches. The bearded dwarfs above the entrance, pouring out rings and other trinkets from bags, are consistent with this view" (Kempers 1959 : 41 pl. 65-66). There is no other indication that it be considered to be dedicated to Kuvera? It has small windows which "are a feature seldom if ever met with in temples with the exception of those of the type of Sari (P 1.117). Here they are merely decorative" (ibid). The word *pawon* means a kitchen (Casparis 1950 : 203).

In Bali, there are five stanzas to Vajrānala, entitled (Pañca)-Bajrānala-stava (ed. Hooykaas 1973 : 86) where he is described as seated in a mandorla of flames, pure like the autumnal moon, with three eyes and four arms holding a staff (*daṇḍa*), abhayada mudrā, rosary (*akṣasūtra*) and verse (*kamaṇḍalu*). Each of the four Nepalese mudrā-manuals that I have consulted illustrate mudrās to Vajrānala. The Pawon seems to have been a temple to Vajrānala, who is connected with fire in the Balinese stotra : *sarvāgneya, śānti-karmaṇi samiddha*. The word *śānti-karmaṇi* is an unambiguous reference to śāntika homa. Vajrānala was the presiding deity of homa, which explains the presence of small windows as escape for the smoke of homa ceremonies. Homa is a distinctive characteristic

of the tantric form of Buddhism. It had to be provided for in a special temple, because of the smoke. In the mantrayāna or Shingon monasteries of Japan, special halls are constructed for the performance of homa. As the vajrayāna of both Japan and Indonesia go back to the same source, it is but natural that both follow the same pattern of giving such a prominent position to homa so much so that a separate temple was erected for it.

The eminent and distinctive place of homa in mantrayāna is also evident in its ritual. In the Japanese text *Shi-dō-in-zu 'mudrās of the four rites'*, the four rites are : (1) the preliminary ceremony of 18 steps (*jūhachidō*), (2) *Vajradhātu*, (3) *Garbhādhātu* and (4) homa (Toki 1899 : 1-2). A special section has been provided for the eleven mudrās performed during homa. The first mudrā is the *Kongōkaruma-bosatsu-in* which is executed before the sacred fire is lit. The second is *ka-ten chō shō in* 'mudrā to invite the god Agni.' This is the first act of the celebration of homa, an invitation to Agni to come to take his place in the middle of the hearth for his share in the offerings. The third mudrā is to the nine planets (*navagraha*), & Signs of the Zodiac (*rāśi*) and the fourth mudrā is to the constellations. The fifth mudrā is to the principal deity (*Jap. honzon*) of the homa ceremony, *Acala vidyārāja*, who is invited to take place in the hearth. It is the most important act of the entire ceremony (Toki 1899 : 137-146, esp. p. 142).

In the lamaist pantheon *Chu Fo P'u-sa Shêng Hsiang Tsan* (Clark 1937 : 2. 311-312), ascribed to the *Lcañ-skyā qutuytu Rol-paḥi-rdo-rje*, *Jvālānala* (Tib. *Me-ltar-ḥbar-ba*) is illustrated between two forms of *Acala* :

348 *Aṣṭakapi Acala*

349 *Jvālānala = Vajrajvālānalārka*

350 *Caturbhuja Acala*

This suggests a basic correlation between *Jvālānala* and *Acala*. *Vajra-jvālānalārka* coincides with *Vajrānala* on whom the alternative name of *Chandi Pawon Bajranalan* was based. *Chandi Pawon* must have been a homa temple whose presiding deity was *Acala*. The *angiśālā* or structure for homa is also called *vajra-jvāla* in the Japanese yogatantric Shingon denomination in the *jūhachidō* (*Shingon-mikkyō-zu-in-shu* 1.29) as well as in the *Vajradhātu-maṇḍala* (o.c. 2.101).

Chandi Pawon is nearer to *Mendut* which represents the *Garbha-*

dhātu maṇḍala of Vairocana. In the Japanese tradition of mantra-yāna, there are three rites pertaining to the (1) jūhachidō 'the preliminary rite of 18 steps' (2) Kongōkai 'Vajradhātu', (3a) Taizōkai 'Garbhadhātu' and (3b) Fudō 'Acala'. In the ritual manuals as well as in mudrā handbooks the Garbhadhātu is invariably supplemented by an addendum pertaining to the fourteen mūla mudrās of Acala (Lokesh Chandra/Sharada Rani 1978 : 3.274-287). In the Tibetan tradition too, the Mahāvairocana-tantra (Toh. 494) which is the basic text for the Garbhadhātu maṇḍala, is immediately followed by the Acala-kalpa (Toh. 495) in the Kanjur. The Tibetan Kanjur follows a precise systematic order and the sequence of every text is determined by well-thought out considerations of interdependence based on doctrinal, ritual and philosophical development. Thus the juxtaposition of the Mahāvairocana-sūtra and the Acala-kalpa is not a fortuitous chance, but an intentional indication of a close and integral relationship between them, which is validated by the Japanese tradition. Acala is surrounded by flames, and in Japanese symbolic representations he is portrayed by his flames and emblems alone. The very distances between Mendut-Pawon, and Pawon-Borobudur suggests that the entire complex was planned to the last detail to reflect to scriptural norms of the caryā and yoga tantras. Acala (Pawon) and the Garbhadhātu maṇḍala (Mendut) belong to the caryātantras while Vajradhātu maṇḍala (Borobudur) to the yogatantras. Hence Pawon is closer to Mendut than to Borobudur. The distance of 1750 metres between Pawon and Borobudur is one half times the distance of 1150 metres between Pawon and Mendut. The numerical cosmology coded into the design and measurements of the Borobudur complex has yet to be worked out. The intricate system of numerical sets of time and space juggled into the Angkor Wat has been worked out by Eleanor Moron (1977 : 217ff) and it can be a starting point for a future study on the cosmic numerology of the Borobudur.

The diverse elements from distant lands that have been pressed into a comparative pattern to bear upon the Borobudur in this paper, naturally pose the question of the feasibility of communications between these areas and the interflow of culture amongst themselves or via a core-point. The new identification of the Mendut-Pawon-Borobudur could be possible only by the comparison of the different expressions of the same tradition of the kriyā and caryā tantras manifested in twin maṇḍalas of the Garbhadhātu and Vajra-

dhātu, in the classical commonwealth of vajrayāna countries. The Chinese biographies of Vajrabodhi and Amoghavajra provide undeniable evidence that the traditions of these tantalizingly far-removed areas of Central Asia, Kanchi in South India, and the Sino-Japanese traditions converged on the very soil of Java in the persons Vajrabodhi and Amoghavajra and that too in the early part of the eighth century—a century which was to give us the great vajrayāna monuments of Indonesia culminating in the lyrical architecture of the Borobudur. Amoghavajra from Samarkand had accompanied his uncle on a trade visit to Java. There he met Vajrabodhi of Kanchi in A.D. 718 and became his disciple. Vajrabodhi landed at Canton in A.D. 719. A year later Amoghavajra arrived at Loyang in A.D. 720. Both of them were instrumental in translating the Tattva-saṅgraha and other fundamental scriptures of vajrayāna into Chinese. In fact, along with their contemporary Śubhakarasiṃha, they laid the foundations of vajrayāna in East Asia whose visual dharma were the twin maṇḍalas preserved to this day in Japan. The presence of these two great teachers on the island of Java in person, is a unique historic evidence of the emerging world of vajrayāna, converging to a unity in a shared cultural interdependence of values and forms, the remnants of whose manifold strands today lie disseminated far apart. The Borobudur is in direct line of descent in the conceptual genealogy of the Sino-Japanese maṇḍalas and we may no longer wonder that for the interpretation of the Mendut-Pawon-Borobudur complex Japan provides astonishingly precise parallels both in its historical and living traditions.

The Sañ Hyañ Kamahāyānan Mantranaya (SHKM) is a tantric text from Indonesia, with 42 Sanskrit verses, each verse followed by an Old Javanese commentary. Following the pioneering studies of Wogihara Unrai and Sakai Shirō, Prof. de Jong (1974 : 465-482) has demonstrated beyond doubt that the verses of SHKM are derived from the Mahāvairocana-sūtra and the Adhyardhaśatikā Prajñā-pāramitā. Verses 1-5ab, 6-9, 16-18, 20-22 are from the Mahā Vairocana-sūtra (T. 848, Nj. 530, Toh. 494) ; while verses 26-42 stem from the Adhyardhaśatikā (T. 244, Nj. 1037, Toh. 488). The Mahāvairocana-sūtra belongs to the caryā-tantras and the Adhyardhaśatikā to the yoga-tantras. The SHKM thus finally proves beyond doubt the presence of caryā and yoga tantras in Indonesia and substantiates our identification of the Mendut and Borobudur as monumental stereomorphic expressions of the Twin Maṇḍalas of the two divisions

of tantras. Yet, this is a first step in the direction of a synthetic study knitting together the scattered strands of the fundamental of the unity Buddhist world on the plane of art and thought (compare Leeuw 1964 : 63).

Notes

¹ Translated into Tibetan (Toh. 479) by Śraddhākara-varman and Rin-chen-bzañ-po (958-1043). It was translated into Chinese three times :

- (i) Vajrabodhi made an abridged translation for recitation in A.D. 723 (T.866=Nj.534).
- (ii) Its first chapter (out of its four chapters) was translated by Amoghavajra during 746-771 (T. 865=Nj. 1020).
- (iii) The last and complete translation into Chinese was by Dānapāla (Shê-hu, A.D. 980-1000). It states at the end that the Sanskrit text consist of 4000 ślokas in prose, that is, $4000 \times 32 = 128,000$ syllables. It agrees with Tibetan.

² See Lokesh Chandra 1972: pl. 1 (size 32x45 cm) and pl. 699 (size 96x106 cm). The large-size reproduction of the two Vairocanas is helpful in understanding their details.

³ Bosch 1929 : 115 n. 7 writes : "No doubt, the *uttarabodhimudrā* mentioned by Waddell, *Lamaism*, pp. 337 and 350, is the same as the *bodhyagri*". He is right. Waddell has reconstructed the Sanskrit from the Tibetan expression where the same Tibetan word can be *agri* as well as *uttara*. Our context requires the component *agri*.

⁴ Raghu Vira/Lokesh Chandra, *A New Tibeto-Mongol Pantheon*, Part 13: plate 22 (the 1037-deity maṇḍala of Vajradhātu of the Tathāgata family as enunciated in the first section of the Tattva-saṅgraha), plate 23 (the 1037-deity maṇḍala of Trailokyavijaya of the vajra family as enunciated in the second section of the Tattva-saṅgraha), plate 26 (Paramādya Vajrasattva; in the Japanese naya-maṇḍala Vajrasattva is the main deity).

⁵ Shoson-zuzō 'figures of deities' by Shinkaku (A.D. 1117-1180) pl. 9 (Taishō Zuzō 'Iconographic Section of the Taishō Tripiṭaka' vol. 3, work no. 88).

⁶ *Tamil Lexicon*, Madras 1932, vol. 5(1). 2764b.

⁷ M. N. Deshpande, Buddhist Art of Ajanta and Tabo, *Bulletin of Tibetology* 103 (1973). 40. Mr. Deshpande uses the expression "large *chamba* image of Buddha in *pralambapāda*" which has to be corrected to : 'large (*chibo*=*che-po*) Image of Maitreya (*chamba*=*Byams-pa*) Buddha in *praḷambapāda*'.

⁸ Its plan is given in Tucci, *Indo-Tibetica*, IV(i). 169, details of its 72 chapels on p. 171, illus. in IV(2). fig. 119. A very clear view of the whole construction is provided by Liu Yisi, *Xizang Fojiao Yishu*, Beijing 1957, fig. 7.

⁹ Alex Wayman 1973 : 102 (diagram of Sumeru), 104 (thaṅka).

¹⁰ For the eight bodhisattvas see N. J. Krom, *De Bodhisattva's van den Mendut (met een plaat)*, *BKI*. 74 (1918). 419-437. Their identification merits reconsideration on the basis of the Japanese Garbhadhātu maṇḍala (Lokesh Chandra 1972) and the related Tibetan maṇḍalas reproduced in Raghu Vira/Lokesh Chandra 1967 : 13, esp. maṇḍalas 20, 21.

¹¹ Raghu Vira/Lokesh Chandra 1967 : 13-15. 1-3. These three parts show all the 132 maṇḍalas in line drawings. Maṇḍala 22 pertains to the Vajradhātu.

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ON A NEWLY IDENTIFIED MANUSCRIPT OF THE
HETUBINDUṬĪKĀ IN THE ASIATIC
SOCIETY OF BENGAL

ERNST STEINKELLNER

Arcaṭa's Hetubinduṭīkā (HBT) has been edited by the Pandit Sukhlalji Sanghavi and the Muni Shri Jinavijayaji¹ on the basis of a single palm-leaf manuscript from a Jaina collection at Pātan. This manuscript of the 11th or 12th century, written in "a very old form of the eastern Devanāgarī of the Nevārī type",² is incomplete, six folios having been "completely destroyed".³ The resulting gaps in the printed text have been made up for, to some extent, by the substitution of the Tibetan translation in my edition of Dharmakīrti's Hetubindu (HB).⁴ But the pandit has already shown the possibility of improving upon this textual situation by pointing to a number of authors from the epistemological tradition of the Jains who made Arcaṭa's comments "a special subject of their study" and, thus, incorporated short and longer quotations from his Ṭīkā in their texts.⁵ The Muni Jambuvijayaji was the first to investigate these possibilities. In his contribution to the felicitation volume for Professor Frauwallner⁶ he was able to restore the original Sanskrit text corresponding to the missing folio 52 of the Pātan-manuscript on the basis of the Tibetan translation and a long quotation from the HBT he found in Candrasena's Utpādādisiddhiṭīkā. In this way about half of HBT 48,17ff.⁷ was filled by regaining the strictly speaking,⁸ original text.

Thanks to the untiring vigilance of Elliot Stern, Philadelphia, and thanks to his spirit of scholarly solidarity we are able to now fill another of these gaps with most of its original text, and, beyond that, we have a second manuscript—at least for a great part of the text—for the purpose of future editorial work or accurate philological interest. In his letter of June 26, 1980, Stern provided me with the following information: "An incomplete mss. of Arcaṭa's Hetubinduṭīkā has been lying many years in the Asiatic Society, Calcutta, awaiting identification. I happened to see the entry, no. 33 on pp. 80-82 of A Descriptive Catalogue of Sanscrit

Mss. in the Govt. Collection under the Care of the ASB, vol. 1 : Buddhist mss., Calcutta 1917. The passage giving Īśvarasena's views looked awfully familiar ; all the extracts may be traced to the section on *anupalabdhihetuḥ*, except 'folio 25A' which has text from the end of *svabhāvahetunirūpaṇam* and beginning of *kāryahetunirūpaṇam*. Unfortunately, the ends of the palm leaves have been cut—some text is lost on each line". When in 1981-82 Dr. Stern visited Vienna and travelled through India in search of manuscript materials for his forthcoming critical edition of the *Vidhiviveka* and *Nyāyakaṇikā*, he kindly procured a microfilm-copy of this manuscript and brought it to Vienna.⁹

Since the catalogue¹⁰ is difficult to locate, I quote the description of the manuscript in full : "Substance, seasoned palm-leaf. 12½×2 inches. Folio (by counting) 51. Lines, 6 on a page. Written in the Bengali character of the latter part of the XIIth century, which well agrees with that of the last photograph of the third plate in Bendall's *Cam. Cat.*

"It appears that the leaves were much longer than 12½ inches, because it is clean cut at both the ends, cutting even the writing. When the leaves were entire, there seems to have been two holes for the strings, one to the right and one to the left of the centre. The leaves have been so cut that the portions of the right-hand holes are still visible and a portion of the blank space round the hole is visible in every leaf. Under the circumstances, it is difficult to describe the MSS., which has no beginning, no end, no colophons and no leaf marks. I have left the leaves as I found them and to preserve the present arrangement, I have put down, in the blank round the left-hand hole, Bengali numerals from 1-51.

"That the book is a Buddhist Nyāya tract is apparent."¹¹

In order to identify the folios I have kept Hara Prasad Shastri's pagination, which does not indicate the original page—sequence, but had the purpose of providing an inventory only. The page which carries the number has been defined as reverse ("b"), here.

Due to the great amount of text available it is possible—irrespective of the mutilated shape of the leaves—to fill another of the hitherto unique manuscript's gaps : About two-thirds of the lacuna of HBT 187, 21ff.¹² can be restored with the help of the new Calcutta manuscript (=C) and the Tibetan translation (=P). In order to provide for a clear conception of the newly gained text and the still remaining lacunae, I have added to the following

restoration of the Tibetan translation in round brackets where the last part of the lines is not available in the manuscript. Words from the Hetubindu are in italics.

HBT 187,21 : (C, f. 7a6)...āha/*abhāvas tu pratiyogino* yaḥ sādhyah
 so¹³ <'> *nyabhāvena* na virudhyata iti/kuta (śe na/*lhan cig gnas*
pa'i phyir ro // zla'o dños po med pa dañ gz'an yod pa dag lhan
 cig gnas pa'i phyir ro // 'di yaḥ gz'an gyi 'dod pa la bltos nas
 brjod pa yin gyi de lta ma yin na gañ kho na'i phyogs) (C f. 30b1)
 °kaivalyaṃ¹⁴ sa eva ghaṭābhāva iti pratipādanāt kasya
 kinsahāvasthānaṃ bhavet/*tasminn* anyabhāvena saḥāvasthāyini
 tadabhāve *prameye katham liṅgaliṅginor virodhaḥ*/na¹⁵ kathañcid
 iti </> asambandha eva tayo <r> (yin pa'i phyir ro // 'dir yaḥ
 'gal pa'i 'brel pa la bltos nas gz'an yod pa ni rtags yin pa'i
 phyir/gz'an pa'i chos can misrid pas spyi med pa sgrub par byed
 pa'i gnas skabs la gañ) (C f. 30b2) prāg iti tadabhāve doṣo (?)¹⁶
 'parihārya eveti/evaṃ sambandhābhāve <'> parasyāvasthāpīte
 'nyabhāvagatyā tadabhāvagatyasambhavaṃ siddhāntavādinah paro
 darśayitum āha/*nanv asati sambandha* ityādi/anyabhāvaga <ti> (ñid
 de med par rtogs pa'i phyir rtags dañ rtags can gyi dños po rnam
 par 'byed pa ni gañ dañ gañ gz'an yod par rtogs pa las de med
 par rtogs par sñar bśad pa de yaḥ gz'an yod pas) (C f. 30b3)
 °yāv (?) asati sambandhena syāt¹⁷/na kevalaṃ liṅgaliṅgibhāvaḥ¹⁸
 </> tasmād avāśyaṃ tvayā kaścit tayoḥ sambandha eṣṭavyaḥ </>
 sa eva mamāpi bhaviṣyatīti/siddhāntavādy āha/*na vai* naiva *kutaścit*
samba <ndhāt> (cuñ zad cig 'bral pa la rten pa gz'an yod pas de
 med pa śes par byed par mi 'dod kyi/'on kyañ kho bo ni gz'an
 phyogs 'ba' z'ig yod pa) (C f. 30b4) eva tadanyasya ghaṭāder
 abhāvaḥ </> anya¹⁹-bhāvasya parabhāvena tuccharūpatvād
 <iti/>²⁰ etac ca prāg evoktam </> anyabhāvo 'pi tadabhāva iti
 vyapadiśyata ity²¹ atra naiyāyikān nirasyati²²/yadā (de lta yin pa
 de'i tshe de gz'an yod pa dag gz'an bum pa la sogs pa dañ ma 'dres
 pa ni lhan cig pa'i ño bo gañ yin pa de ltar ni ma yin no // gz'an
 ma yin pa dañ 'dre ba'i ño bo 'di dag ñid ston pa ni) (C f. 30b5)
 <keva> lasyeti²³/kaivalyaṃ vacyaveṣṭe (?)²⁴/*ekāmany* ekasminn
 ananyasahite ātmani abhāve *vyavasthitasyeti tenā*²⁵*tmanā* </>²⁶
 tatsāmarthyabhāvirūpā (?)²⁷ tad rūpam evānukurvva° (pa'i mñon
 sum gyis yoñs su gcod pa de ñid gz'an bum pa la sogs pa de la
 yod pa rnam par gcod do // rnam par mi gcod par med pa rtogs pa
 yin na ni gañ gis na gz'an) (C f. 30b6) <anya> bhāvatadabhā-

vayor²⁸ gamyagamakabhāvo yatas tayoḥ sambandho mayeṣyata iti kumārīlas tu manyate/bhāvāṃśāt pṛthag evāyam...(HBT 187,27).

As to the textual quality of the Calcutta-manuscript in general : To judge from several samples investigated, it seems to be worse than that of the Pātan-manscript ; nevertheless, there are better readings to be found, too.

There is only one consequence to be drawn from this text for the text of the Hetubindu : The words *anyabhāvatadabhāvayoh* in HB 24, 24 have to be deleted because the pratika quoted in C f. 30b2 clearly shows that the Tibetan correspondence to these retranslated words must be considered to be a gloss.

Since the original sequence of the folios has been seriously disturbed and I had to identify, therefore, every folio in my search for additional texts, the following concordance between the edition of the Hetubinduṭīkā and the Calcutta-manuscript may facilitate any future work with this manuscript, or at least complement Hara Prasad Shāstri's description. Here I would like to express my gratitude to the late Pandit Sukhlalji Sanghavi for the very detailed terminological index he added to his edition of the Ṭīkā, for without this index I would not have been able to locate the text of these folios so easily.

Calcutta-Ms (folio)	HBT (ed.) (page)	Calcutta-Ms (folio)	HBT (ed.) (page)
46a	111, 18-112, 20	49a	134, 28-135, 24
46b	112, 23-113, 25	49b	135, 26-136, 26
45b	119, 25-120, 25	51b	136, 28-137, 27
45a	120, 27-122, 1	51a	137, 29-139, 1
19a	122, 3-123, 4	17a	139, 3-140, 3
19b	123, 6-124, 8	17b	140, 5-141, 6
8a	124, 10-125, 9	27b	141, 8-142, 6
8b	125, 11-126, 12	27a	142, 9-143, 11
44a	126, 14-127, 14	28a	143, 13-144, 19
44b	127, 16-128, 16	28b	144, 21-145, 23
47a	128, 19-129, 17	26b	145, 26-146, 25
47b	129, 19-130, 19	26a	147, 7-148, 6
48a	130, 22-131, 21	25a	148, 7-150, 3
48b	131, 23-132, 19	55b	150, 5-252, 4
50a	132, 21-133, 25	24a	151, 6-152, 6
50b	133, 27-134, 26	24b	152, 11-153, 10

Calcutta-Ms (folio)	HBT (ed.) (page)	Calcutta-Ms (folio)	HBT (ed.) (page)
22a	153, 12-154, 14	6a	190, 5-191, 3
22b	154, 16-155, 15	5a	191, 5-192, 3
21a	155, 17-156, 18	5b	192, 5-193, 5
21b	156, 20-157, 18	4b	193, 7-194, 8
20b	157, 20-158, 21	4a	194, 10-195, 10
20a	158, 23-159, 20	3b	195, 12-196, 13
11b	159, 22-160, 23	3a	196, 15-197, 17
11a	160, 26-161, 26	2a	197, 19-198, 21
12b	161, 28-163, 2	2b	198, 24-199, 24
12a	163, 4-164, 3	31a	199, 26-200, 23
13a	164, 6-165, 6	31b	200, 25-201, 25
13b	165, 8-166, 7	34b	201, 26-202, 21
14a	166, 9-167, 24	34a	202, 23-203, 17
14b	167, 26-168, 23	32a	203, 19-204, 20
15b	168, 25-169, 24	32b	204, 22-205, 24
15a	169, 26-170, 26	33a	205, 26-206, 28
16a	170, 28-171, 26	33b	207, 2-208, 7
16b	171, 28-172, 25	35b	208, 9-209, 10
9a	172, 27-173, 24	35a	209, 13-210, 13
6b	173, 26-174, 25	36b	210, 16-211, 11
1b	174, 27-175, 26	36a	211, 14-212, 9
1a	175, 28-176, 28	37a	212, 11-213, 10
29a	177, 2-28	37b	213, 13-214, 16
29b	177, 30-178, 26	38b	214, 18-215, 18
18a	178, 28-179, 27	38a	215, 20-216, 19
18b	179, 29-180, 26	42a	216, 21-217, 17
10a	181, 1-182, 8	42b	217, 19-218, 14
10b	182, 10-183, 15	39b	218, 16-219, 13
23a	183, 18-184, 18	39a	219, 15-220, 11
23b	184, 21-185, 21	41a	220, 13-221, 7
7b	185, 23-186, 21	41b	221, 9-222, 13
7a	186, 22-	40b	222, 15-223, 7
30b	-187, 28	40a	223, 10-224, 9
30a	188, 1-189, 2	43b	224, 11-225, 11
6b	189, 5-190, 3	43a	225, 14-226, 9

Notes

1. Gaekwad's Oriental Series 113, Baroda 1949.
2. *ibid.*, II.
3. *ibid.*, I.
4. Wien 1967, appendix (109-115).
5. Cf. XXIX of his introduction and the texts mentioned in the footnotes.
6. A Comparative Study of the Utpādādisiddhiṭīkā and the Hetubinduṭīkā. WZKS 12/13, 1968, 187-191.
7. This part of the restoration with the help of the quotation in the Utpādādisiddhiṭīkā corresponds to f. 260b6-261a4 of the Peking edition (cf. HB, appendix 112,6-22).
8. The remaining portion was filled with a "Sanskrit retranslation" on the basis of the Tibetan translation and Durvekamiśra's Āloka. It may be useful to emphasize here that the learned Muni differentiates clearly between "restoration" and "Sanskrit retranslation" (189), and that his methodological example should be followed in comparable philological enterprises, too.
9. This copy now belongs to the collection of the Institute of Tibetan and Buddhist Studies, University of Vienna.
10. Hara Prasad Shastri: A Descriptive Catalogue of Sanskrit Manuscripts in the Government Collection Under the Care of the Asiatic Society of Bengal. Vol. 1. Buddhist Manuscripts. Calcutta 1917.
11. This description (*ibid.*, 30) is followed by textual specimens (30-32).
12. Corresponding to f. 368b7-369b5 of the Peking edition (cf. HB appendix, 114f.).
13. The translators seem to have been irritated and gave a *pratīka*-statement, and the remaining part, up to *de dan*, allows no meaningful construction.
14. P has only 'ba' zig.
15. *virodho na C*.
16. P has *sihar gyi skyon de dan der byun ba so na 'dug ste* which is difficult to relate to the Sanskrit.
17. P has *de med pa dag la 'brel pa yod par gyur na yin gyi*
18. -*bhāvas C* has no correspondence in P, while the instrumental in *pas* is not reflected in the Sanskrit.
19. *abhāvo 'nya—C*.
20. According to P...*yin pa'i phyir 'zes...*
21. P has *'zes tha sñad biags pa ni (!)*.
22. *niryasyateti C*.
23. According to P 'ba' *zig pa 'zes bya ba ni*.
24. P has *ñi tshe ba ñid du brjod do||*
25. C has between the akṣaras *te* and *nā* nine further akṣaras of slightly smaller size, and seemingly squeezed in. They are almost illegible, probably: *nātma (?) nānanyasahedhata*, and seem to have been crossed out. From the monochromatic film at my disposal it is impossible to say more.
26. The Tibetan for this sentence seems to correspond only in parts.
27. -*rūpā* has no correspondence in P.
28. -*tadābhāvayor C*.

THOUGHTS ON EDUCATION

TRIGUNA SEN

Education is not an end in itself, but a means. It is a means to achieve something. When we want a young man to become an engineer, we import engineering education to him and if he gets a first class, we think his education has been excellent. We, in fact, equate 'education' with a subject or with the training in a skill. But there is a world of difference between a trained person and an 'educated' person. The training in a subject increases one's knowledge or proficiency in a particular field. The knowledge does not change his taste or habit or outlook, does not make him a better citizen does not make him more courageous or most upright or more sympathetic towards his fellowmen. It remains outside him, like his garment, like his shoes, like his motor car in the garage. It adds to his total worldly possession. He becomes, to that extent, a richer man, with more possessions and more exhibits. But is he more worthy, is he more disciplined, is he conscious of his social responsible to the Nation, is he a wiser, or a happier man? No. The education we import does not make the answer yes.

Our education makes a mechanic, not a man. What we need, what the country needs, what the whole world needs is better men, greater men, men with greater courage and braver vision. Man does not live in a house or in an office or in a factory, man lives in his spirit, in his soul. *There can not be a great man with a small soul.* It is in his being, in his spirit that a man is great or small. How does our educational system or curriculum help in that? It does not.

We are a developing country. We have now more buildings and more roads. But we need giants to walk our roads' we need heroes to live in our houses. Where are they? When are they coming? From where? I am sure not from our present universities or colleges or schools. They are manufacturing through their curricula and syllabi thousands of pigmies, microscopic men and women, mere dots on the poverty line.

We are developing. We are developing in our poverty also.

Our problems are multiplying. We are having more crimes, more unrests, and we have to spend more on police and law-courts, more on emergency wards in hospitals, more on asylums and psychiatrists' clinics. We are richer men, comparatively rich now, but we are poorer in spirit, more unhappy more alarmed than before. So where is progress? Where is more joy or happiness? Where is more of life or liveliness in life? Which of the schools, colleges or universities teach how to become better men, happier men, purer men? Where will a pupil learn how to broaden his spirit how to gain courage and become fearless? I have not seen any syllabus at any stage of education which teaches a young boy or girl to question values, to uphold values, to live values and act values in life. We need such a course, we need such a syllabus.

We also need institutions which will train teachers who can inspire younger people to these values. Not the stereotyped B. Ed. and M. Ed. colleges—they only impart knowledge in a subject or skill. What I mean is the training of the spirit. I mean the fire, not the smoke. I mean the spark not the noise. We are having researches in so many things and spending so much money on them. We want now a full fledged Institute to research on values—both ancient and modern. Please don't leave this subject to professional philosophers. For, they will find no interest in spiritual values and they will delight in syllogisms in vacuums. We need researches in values both for India and the world. I repeat here that we need national universities to encourage and explore these new departments of man-making education. Swami Vivekananda, Sri Aurobindo, Rabindranath all have pointed out to these things. Our Upanishads have very beautifully stated them. But we have only admired these saying we, the elders, did not even practise them in our lives. There have been lots of talks and seminars, now is time to seriously do something. We have all these years declared our good intentions, but we have not yet begun. Let there be a beginning, let the procession start, otherwise it will never reach anywhere. Let education make us dynamic give us courage to commit mistakes. If our intention be right if we are clear in our minds, it does not matter if we also commit a few blunders. Let education make us feel free, let it give us freedom and dignity and our spiritual, self spiritually, our true divinity.

PURĀṆAS AND DHARMAŚĀSTRA : SOME OBSERVATIONS ON INTER-INFLUENCE

S. G. KANTAWALA

Purāṇas and Dharmaśāstraic literature constitute a vast and important bulk of Sanskrit literature and are a rich source of social, political, legal and religious history of ancient and mediaeval India. Amongst several scholars who have worked in these departments of literature a mention must be made here of the late MM. Dr. P. V. Kane and the late Dr. R. C. Hazra. The former has dealt with the problem of the Purāṇas, Dharmaśāstraic texts and their influence in his *magnum opus* "History of Dharmaśāstra" (Vol. I, Part I, Revised and Enlarged Edition, BORI, Poona, 1968, pp. 408 ff; Vol. V, Part II, BORI, Poona, 1962, pp. 815ff), while the latter dealt with the problem of the interrelationship and indebtedness in his "Studies in the Purāṇic Records on Hindu Rites and Customs" (Motilal Banarsidass, Delhi : Patna : Varanasi, Second Edition, 1975) and other several papers. This is an interesting and a fascinating problem. And in this paper it is proposed to discuss here some areas of the inter-influence of the Purāṇas and the Dharmaśāstraic literature, especially with reference to the thematic contents, as they have influenced mutually in the growth and development of both the departments of literature; it may passingly be noted that Purāṇas, Dharmaśāstra and Tantraśāstra constitute an important topic from the point of view of interdepartmental influence.

The origin of the Dharmaśāstraic-thoughts and Purāṇas is traceable to the Vedic literature and with the passage of time we have the Dharmaśāstras, Smṛtis and Nibandhas on one hand and Purāṇas and Upapurāṇas with their growth of their texts on the other side in the general growth and development of the Sanskrit literature. The early Dharmasūtras, e.g. of Gautama, Āpastamba, Baudhāyana and Vasiṣṭa are datable to 500 B. C.-300 B. C.,¹ whereas some of the early Purāṇas are datable to 300 A.D. - 500 A.D.,² while some of the material and tracts therein are traceable to a period before Christ, e.g., according to V. R. R. Dikshitar some tracts in the Matsyapurāṇa are datable to 3rd or 4th century B.C.³

Amongst the fourteen sources of *Vidyā* and *dharma* the Yājñiavalkyasmṛti (1.3) mentions Purāṇa as well as Dharmaśāstra⁴ and this co-ordination may tend to suggest their interrelationship from the thematic point of view over and above its authoritativeness. According to the classical definition a Purāṇa is said to deal with five themes, viz. 1. creation, 2. re-creation, 3. divine genealogies, 4. cycles of Manus and 5. royal genealogies⁵. The Matsyapurāṇa (=MP) 53.65 mentions *ākhyānaka* as one of its contents. With the passage of time the *pañcalakṣaṇa*-definition was enlarged to include five more themes, i.e. 1. *vṛtti*, modes of subsistence, natural or prescribed for all men by śāstra, 2. *rakṣā*, protection, i.e. *avatāras* destroying those who hate the Vedas, 3. *Samsthā*, four kinds of *laya*, 4. *hetu*, cause of creation, viz. soul which is the subject to nescience and collects *Karmans*, and 5. *apāśraya*, the refuge of individual souls i.e. Brahman.⁶ The definitional descriptions of the Purāṇas elsewhere indicate also an advance from the thematic point of view over the classical definition, when it says that Purāṇas deal with the glorification of Brahmā, Viṣṇu, Sūrya and Rudra as well as *dharma*, *artha*, *kāma* and *mokṣa*.⁷ The MP (2.22-24) acts as a mile-stone, when it includes in its brief contents the topics like *bhuvanavinyāsa*, *dānadharmanidhi*, *varṇāśramavibhāga*, *devatāpūrta*, establishment of images of gods etc. This clearly shows which Dharmaśāstraic topics came to be included in the Purāṇas and thus "the present Purāṇas have practically turned into Smṛti-codes".⁸ They had started incorporating matters on Hindu rites and customs from a period earlier than the sixth century A. D.⁹ In the first few centuries of the Christian era it was believed that rules or ordinances (*dharmaḥ*) which were understood from the Vedas were considered more authoritative than those based on the Purāṇas¹⁰; but the reversal in this attitude came after a few centuries i.e. about 1000 A. D. and the Purāṇas came to be much more relied upon by the Dharmaśāstraic texts. Medhātithi (825 A. D.—900 A. D.) quotes in his *bhāṣya* on the Manusmṛti a number of verses from the Purāṇas¹¹ and this tends to suggest that Purāṇas came to have Dharmaśāstraic character and came to be quoted in support by the Dharmaśāstra-writers.

With the passage of time in the history of India there arose a need to deter people from the influence of the Buddhism. and to save people from the foreign invasions. Vedic sacrifices were getting rare on account of diverse reasons. All these

circumstances conduced to the development of the neo-Hinduism or the Purāṇic Hinduism by keeping at the same time the continuity of thought. In this period of fermentation Purāṇas came to absorb or contain numerous stanzas on Dharmaśāstraic topics. In this connection it may be noted the Smṛti-chapters in the Purāṇas are found to be influenced by Manu (200 B.C.-100 A.D.)¹² Yājñavalkya (100 A.D.-300 A.D.¹³) and Nārada (100 A.D.-400 A.D.)¹⁴ it may be added here that they are mostly influenced by the Manusmṛti¹⁵. In this context the topics common to the Dharmaśāstra-texts and the Purāṇas and the Upapurāṇas are, for example, *ācāra*, *ahnika*, *āśauca*, *āśramadharmas*, *bhaksyābhakṣya*, *varṇśāramadharmas*, *brāhmaṇas* etc., *dāna*, *pratiṣṭhā*, *utsarga*, *mahādānas*, *dravyaśuddhi*, *gotra*, *pravara*, *kaliśvarūpa*, *yugadharmas*, *kalivarjya*, *prāyaścitta*, *saṁskāras*—*vivāha*, etc. *karmavipāka*, *narakas*, *nīti*, *rājanīti*, (*o-dharma*), *pātakas*, *śānti*, *śrāddha*, *strīdharma*, *tīrtha*, *tithi*, *vrata*, *vyavahāra*.¹⁶ This clearly shows how the eighteen major Purāṇas (Mahāpurāṇas) are rich in the Dharmaśāstra-material. In this context it may be noted here that the Matsya-Purāṇa, Vāyu-Purāṇa, Viṣṇu-Purāṇa, and Bhaviṣya-Purāṇa contain substantial amount of the Dharmaśāstra-material and amongst them the Matsya-Purāṇa is not only pre-eminently a work containing Dharmaśāstra-material¹⁷ but also encyclopaedic in character¹⁸. Aparārka (1115-1130 A.D.) quotes from MP 83-92 and the Agni-Purāṇa 210 for the Merudānas¹⁹.

Some of the remarkable features of the aforesaid Purāṇic Hinduism, in addition to the *bhakti-wave*, are the brilliant short-cuts put forward by Purāṇas to the Vedic rites and rituals and they are the Purāṇic innovations that came to be expounded by declaring that the *dharma*s are achieved in the Kaliyuga with less effort²⁰, and the *dāna*, religious charity and gifts, came to be regarded as conferring the highest reward, e.g. as stated in the Manusmṛti (1.86) The Vāyu-Purāṇa (6. 65.66) also declared to the same effect. The MP has detailed descriptions of various *dānas mahādānas* and *vratas*. They are described as substitutes of some Vedic sacrifices. The observance of the Akṣaya-tṛtiyāvrata is said to yield the reward of the Rājasūya-sacrifice and ultimately confer the highest abode (*vide* MP chapter 6.5 and also 65.7). The gift of the Suvarṇācala-dāna with due ritual leads to the attainment of the delightful Brahmaloaka and the highest abode (*vide* MP. 86.6). This *dāna*-activity has its relevance also in modern times, when in this

twentieth century we hear about the *bhākhari-dāna* and woollen-blanket-dāna.

Pilgrimage to holy places, baths and *śrāddha*-performance at holy places or at the confluent places of rivers are described in glorious terms as easy means of attainment of heaven ; for example, a bath in the Narmadā is said to give all freedom from sins (MP 187.2). A bath and a performance of *śrāddha* at the Daśāśvamedhatirtha, which is the modern Daśāśvamedha ghat on the bank of the river Narmadā, at Bharuch, in the Gujarat state, are said to conduce to the reward of the Aśvamedha-sacrifice (MP 193. 22-23). This *yātrā*-concept led to the unity of India in ancient and medieval times at the cultural level. The study of the holy places and pilgrimages to them is treated as a subfield of the Dharmaśāstra. The Tristhalisetu: "Bridge to the Three Holy Cities" of Nārāyaṇa Bhaṭṭa, (1540-1570 A.D.), who belonged to the famous Bhaṭṭa-family of Vārānasi, is a good instance in case. This tends to suggest how the Purāṇic theme was dharmaśāstraised.

Various vows or *vratas* came to be expounded in the same direction in various Purāṇas and on the Dharmaśāstra-side we have the brilliant example in Hemādri's (13th century A.D.) "Vratarāja", the *magnum opus*, which deals with 1000 vows (*vratas*). In this context it may also be noted that the famous digest-writer Ballalasena, (2158 A.D.-1183 A.D.), king of Bengal, acknowledges his indebtedness to Purāṇas, in his "Dānasāgara" and recognises them as authority.

Even though Purāṇas claim priority to Vedas²², they recognise them as authoritative and prescribe Vedic *mantras* in several rites, but they innovate, when they prescribe the employment of Purāṇic *mantras* in lieu of the Vedic *mantras* ;²³ for example, the MP (57.5-6) prescribes the *mantra* "*Somāya varadāya Viṣṇave ca namo namaḥ*" in stead of the Vedic *mantra* *āpyāyasva*... (RT. 1. 91. 16) in the observance of the Rohiṇicandraśayanavrata for the *Śūdras*. It is significant to note that in the "Udvāhatattva" Raghunandana, the author of the Smṛtitattva (1520 A.D.-1575 A.D.)²⁴, emphasises that whatever the Veda may be studied by a man and his family, he has to employ the *mantras* specified by the MP, when he performs a *grahahoma*²⁵. Bhavadevabhaṭṭa (c. 1100 A.D.) also holds the same view²⁶.

Purāṇas and Smṛtis are indebted to Sāṃkhyan thought in common in their cosmological and cosmogonical accounts. The Manusmṛti

(1. 14ff.), the Matsyapurāṇa²⁷, the Vāyu-Purāṇa and the Bhāgavata-Purāṇa²⁸ describe the origin and genesis of the creation after the Sāṃkhya-philosophy. The influence of the theory of the triad of guṇas of the Sāṃkhya-philosophy is perceptible, when the Purāṇas and Smṛtis are classified as *sāttvika*, *rājasa* and *tāmasa*. The Padmapurāṇa (Uttarakhaṇḍa, 263. 81-84) classifies Purāṇas into three categories, viz. (a) *sāttvika*, (b) *tāmasa* and (c) *rājasa* according to the preferential treatment to (a) Viṣṇu, (b) Śiva and c) other deities. The *sāttvika* Purāṇas are Viṣṇu, Nārāyaṇa, Bhāgavata, Garuḍa, Padma and Varāha. The *rājasa* Purāṇas are : Brahmāṇḍa, Brahmavaivarta, Mārkaṇḍeya, Brahma, Vāmana and Bhaviṣya. The *tāmasa* Purāṇas are Matsya, Kūrma, Liṅga, Śiva, Agni and Skanda. The Padmapurāṇa (Uttarakhaṇḍa 263. 86-89) also gives the three-fold classification of the Smṛtis on the basis of the *guṇa*-theory. Vāsiṣṭha, Hārīta, Vyāsa, Pārāśara, Bhāradvāja and Kāśyapa Smṛtis are said to be *sāttvika* and auspicious and are said to confer liberation. Yājñavalkya, Ātreya, Taittiri, Dākṣa, Kātyāyana and Vaiṣṇava smṛtis are *rājasa* and auspicious and are said to lead to heaven, whereas Gautama, Bārhaspatya, Sāmavarta, Yama, Śāṅkha and Auśanasa Smṛtis are to be *tāmasa* and they are said to lead to hell.²⁹

As noted earlier the influence of the Purāṇas increased to such an extent that the status of *dharma* declared in the Purāṇas got upgraded in comparison with the one of the Vedas³⁰; now the *dharma* came to be threefold : i) *vaidika*, ii) *tāntrika* and iii) *miśra* (Bhāgavata Purāṇa 11. 27.7) and the Devibhāgavata (11.1. 21-23) declares that the Śruti and the Smṛti are the eyes of *dharma* and Purāṇa is its heart. The Vṛddhabārīta (11.72) declares that the Viṣṇupūjā is threefold i.e. *Śrauta*, *smārta* and *āgama*. The Bhaviṣyapurāṇa (Brahmaparvan 1. 53-57) declares that the 18 Purāṇas with others are the Dharmaśāstras for Śūdras and it is significant to note here that the Śrāddhakriyākaumudī (p. 66) of Govindanandana (c. 1510 A.D.-1545 A.D.) quotes these verses in question i.e. *aṣṭādaṣapurāṇāni etc.*³¹

Thus the above-going discussion shows how the Purāṇas are used by the commentators and the digest-writers to elucidate and support the Dharmaśāstraic points of view under consideration or play a secondary authoritative role. They turn into Smṛti-codes, when they have number of Smṛti-chapters.

The climax reaches, when the Purāṇas are declared for upgra-

dition as Dharmaśāstras or a dharmaśāstraisation of Purāṇic themes takes place. All this brings out the importance of the co-ordination of Purāṇic and Dharmaśāstraic studies for the cultural history of India in addition to its importance for the text-critical studies.

References

1. *Vide* Kane V. P., History of Dharmaśāstra (=HDS), Vol. V, Part II, BORI, Poona, 1962, Chronological Table, p. xii.
2. *Vide* Kane P. V., *ibid.*, p. xiii.
3. *Vide* Kantawala S. G., Cultural History from the Matsya-Purāṇa, M.S. University of Baroda, Baroda, 1964, p. 6.
4. Cf. पुराणन्यायमीमांसाधर्मशास्त्राङ्ग मिथिताः ।
वेदाः स्थानानि विधानां धर्मस्य च चतुर्दश ॥ Yājñavalkya-smṛti 1.3.
Note that these 14 means or "sources are arranged by Yājñavalkya in a rising scale of importance and authoritativeness". (Kane P. V. HDS, Vol. I, Pt. I, p. 409).
5. सर्वश्च प्रतिसर्गश्च वंशो मन्वन्तगणि च ।
वंशानुचरितं चैव पुराणं पञ्चलक्षणम् ॥ Matsya-Purāṇa 53.65.
Vide also Kane P. V., HDS, Vol. V, Part II, p. 839, fn. 1365.
6. *Vide* Bhāgavata Purāṇa 12.7.8-10 & also 12.7.11-19.
7. *Vide* Matsya-Purāṇa 53, 66-67.
8. Hazra R. C., Studies in the Purāṇic Records on Hindu Rites and Customs, 1975, p. 5; *vide* *ibid.*, p. 6.
9. *Vide* Hazra R. C., *Op. cit.* p. 5.
10. Cf. *ataḥ sa paramo dharmo yo vedād adhigamyate* /
avarah sa tu vijñeyo yah purāṇādiṣu sthitaḥ ॥
Vyāsa quoted by Aparārka, p. 9; Kṛtyakalpataru of Lakṣmīdhara Bhaṭṭa, Brahmācārīkāṇḍa, (GOS Vol. CVI; 1948 A. D.), p. 33. *Vide* also Kane P. V., HDS, Vol. V, Part II, p. 923, fn. 1474.
11. *Vide* Hazra R. C., *Op. cit.*, p. 7.
12. Kane P. V., HDS, Vol. V, Part II, Chronological Table, p. xii.
13. Kane P. V., *ibid.*, p. xii.
14. Kane P. V., *ibid.*, p. xii.
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17. Kane P. V., HDS, Vol. I, p. 161 (1930 A.D.).
18. *Vide* Kane P. V., HDS, Vol. V, Part II, p. 925.
19. *Vide* Kane P. V., HDS, Vol. V, Part II, p. 999.
20. Cf. *alpenaiva prayatnena dharmāḥ siddhyanti kalau* ; Viṣṇu-Purāṇa 6.2.24; MP 19.14; *vide* Kane P. V., HDS, Vol. I, Part I, p. 412.
21. *Vide* Kantawala S. G., Some Aspects of Purāṇic Religion. Modern India, Heritage and Achievement, Shri G. D. Birla Eighteenth Birthday Commemoration Volume (1977, Pilani), pp. 513 ff.

22. Cf. पुराणं सर्वशास्त्राणां प्रथमं ब्रह्मणा स्मृतम् ।

अनन्तरं च वक्त्रेभ्यो वेदास्तस्य विनिःसृताः ॥ MP. 2. 3-4.

Banka Behari Chakravorty holds that the Vedas and Purāṇas developed simultaneously. (The R̥gveda is not the Earliest Document, *Folklore*, Vol. 26, No. 2, whole No. 296, February, 1985, pp. 1 ff; Vol. 26, No. 3, whole No. 297, March, 1985, pp. 45 ff.)

23. *Vide Kane P. V., HDS, Vol. V, Part II, pp. 918 ff.*
 24. *Vide Kane P. V., HDS, Vol. V, Part II, Chronological Table p. xvi, also Vol. I, Part II, pp. 890 ff.*
 25. *Vide Kane P. V., HDS, Vol. V, Part II, p. 915, fn. 1465.*
 The MP 93 deals with the *Navagrahahoma* and prescribes nine Vedic *mantras*. These *mantras* in the MP differ from those prescribed in the Yājñavalkya-smṛiti (1. 300-301). *Vide* for a comparative chart Kane P. V., HDS, Vol. V, Part II, p. 750. The *mantras* in question are “*ā kṛṣṇena.....*” etc.
 26. *Vide Kane P. V., HDS, Vol. I, Part I, p. 652, Vol. V, Part II, p. 919.*
 27. *Vide Kantawala S. G., Cultural History from the Matsya-Purāṇa, pp. 214 ff. For other theories vide ibid, pp. 212 ff.*
 28. *Vide Dasgupta S. N., History of Indian Philosophy, Vol. III, (Cambridge, 1940) pp. 497 ff., Vol. IV (Cambridge, 1949), pp. 1 ff.*

29. मात्स्यं कौर्मं तथा लैङ्गं शैवं स्कान्दं तथैव च ।
 आग्नेयं च षडेतानि तामसानि निबोध मे ॥
 वैष्णवं नारदीयं च तथा भागवतं शुभम् ।
 गारुडं च तथा पाद्मं वाराहं शुभदर्शने ।
 सात्त्विकानि पुराणानि विज्ञेयानि शुभानि वै ॥
 ब्रह्माण्डं ब्रह्मवैवर्तं मार्कण्डेयं तथैव च ।
 भविष्यं वामनं ब्राह्मं राजसानि निबोध मे ॥

—Padmapurāṇa, Uttarakhaṇḍa. 263. 81-84.

वासिष्ठं चैव हारीतं व्यासं पाराशरं तथा ।
 भारद्वाजं काश्यपं च सात्त्विका मुक्तिदाः शुभाः ॥
 याज्ञवल्क्यं तथाऽऽत्रेयं तैत्तिरि दक्षमेव च ।
 कात्यायनं वैष्णवं च राजसाः स्वर्गदाः शुभाः ॥
 गौतमं बार्हस्पत्यं च सांवर्तं च यमं स्मृतम् ।
 शाङ्गवं चौशानसं देवि तामसा निरयप्रदाः ॥

—Padmapurāṇa, Uttarakhaṇḍa. 263. 86-89.

For other classifications of the Purāṇas *vide* Pusalker A.D., *Studies in the Epics and Purāṇas*, Introduction, pp. xlviii ff. (Bombay, 1955).

30. *Vide ante* fn. 10.

31. *Vide* चतुर्णामपि वर्णानां यानि प्रोक्ताति श्रेयसे ।

धर्मशास्त्राणि राजेन्द्र शृणुतानि नृपोत्तम ॥
 विशेषतश्च शूद्राणां पावनानि मनीषिभिः ।
 अष्टादश पुराणानि चरितं राघवस्य च ॥
 रामस्य कुरुशार्दूल धर्मकामार्थं सिद्धये ।
 तथोक्तं भारतं वीर पाराशर्येण धीमता ॥ भविष्यपुराण, ब्राह्मपर्व, 1.53 ff.

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ON HUMAN EXISTENCE : AN EXISTENTIALIST APPROACH

MADHUMITA CHATTOPADHYAY

“Hast thou ever raised thy mind to the consideration of existence, in and by itself, as the mere act of existing ? Hast thou ever said to thyself thoughtfully *It is* ! needless in that moment whether it were a man before thee or a flower or a grain of sand...without reference in short to this or that mode or form of existence ? If thou hast attained to this thou will have felt the presence of a mystery which must have fixed thy spirit in awe and wonder.”

What poet Coleridge draws our attention to in this passage is the central point of discussion of the existentialists. Like Coleridge, the existentialists believe that ‘the wonder of all wonders’² is the question of existence. Hence philosophy, whose purpose is to deal with ‘being-qua-being’ cannot neglect the problem of existence altogether. In fact, the idea of philosophy as the study of being, contains within itself the idea of existence.

Though the verb ‘to be’ in its root sense suggests existence, for the existentialists, there is a gap between the two. The verb ‘to be’ means just lying there, but the verb ‘to exist’ means something more. Existence is a technical term for the existentialists. What they want to convey by the verb ‘to exist’ will come out in the course of the following discussion. For the present we can note that the existentialists view the individual as existent, i.e., they conceive existence not as a property that is to be possessed, but as a stage that is to be attained.

The existentialists strictly oppose the view of the traditional philosophers who regard individual men as mere copies or replica of the original Form or Essence of Man. They, on the contrary, point out that true existence is irreducible to anything. It does not conform to any scheme, pattern or formula, for it is not the instance of a type, but it is an instance itself. As such the category of individual is higher than the category of universal.

The existentialists attempt to give an analysis-cum-description of this individual, human being. Such analysis, they claim, will disclose to us two features of human being or of human existence. The most outstanding feature is that of contingency. In other

words, human beings are marked by contingency. But what does this mean? Contingency is a technical term, meaning that which is given in experience. It is a brute something which I cannot negate. It is a sort of facticity (the German *Faktizität*). This facticity is something different from factuality. To say that something is factual is to say that it is an objective state of affair, observable in the world. Facticity, on the other hand, may be described as the inner side of factuality. It is not an observed state of affairs, but the inward existential awareness of one's own being as a fact that is to be accepted. No one has chosen to be. He simply finds himself in existence. We discover ourselves among the world of things. Heidegger has used the expression *thrownness* (*Geworfenheit*) as a vivid metaphor for man's facticity. Man is thrown into existence, each one is thrown into his own particular existential situation.⁸ The contingency feature of human being has limitations or 'limit-situations' in Jaspers' words. Heidegger thinks that this limitation is the possibility of death. Apart from death there are also other limitations, e.g. social limitations, moral limitations, physical limitations etc.

This contingency feature indicates that the philosophy dealing with human beings, is a philosophy of the finite. The infinite being, if there be any, who lies beyond the contingency line will fall accordingly outside the scope of discussion of this philosophy.

The contingency feature by itself, however, is not sufficient to give a satisfactory description of human beings. For, it is not just human existence in general that is factually given. My existence, your existence, his existence, her existence are in each case characterised by facticity. Even other beings, for example, material objects, possess this feature also, as they too terminate or perish after a definite time. Thus in their case, the limitation or the limit-situation is there, though of course in a different name.

Accordingly the prime objective of the existentialists is to find out some feature by which we can say that human being is human being. That is, here we are searching for distinctiveness. This feature of distinctiveness or uniqueness is the second feature of human existence. In fact this uniqueness is suggested by the root sense of the verb 'to exist'. Etymologically, the verb 'to exist' ('*ex-sistere*' in Latin) means 'to stand apart'. So, beings who are after all existent beings are beings who are capable of standing apart and thus show signs of uniqueness.

But, wherein lies the uniqueness of human beings ? Certainly not in the occupation of a certain position in space, for, other items also occupy space. Nor does this uniqueness mean physical uniqueness. The existentialists also do not accept the traditional philosopher's view of the uniqueness. For the traditional philosophers, the uniqueness lies in the rationality of man. But the existentialists revolt against this tradition in which reason or cognitive faculty is given the prime position. Against the traditionalists they declare that 'the real subject is not the cognitive subject...'.⁴ Human being cannot be defined by any specific quality. He is too complicated a machinery to be described by any given property such as by rationality. The cognitive faculty cannot engross man as a whole. Knowledge is only partial knowledge of the past, the future is open and man in the future of man. And, the uniqueness of human being lies in his potentialities or possibilities. In *Either-Or*, Kierkegaard holds : "In thinking, I infinitize myself too, but not absolutely, for I disappear in the absolute. Only when I absolutely choose myself do I infinitize myself absolutely."⁵ To infinitize oneself is to open oneself up to possibility.

But, this possibility does not mean physical possibility, (for instance of a child's possibility of being a man), nor is it common-sense possibility. For the existentialists, the possibility is that human being as being is capable of meeting decisions or choices. So uniqueness is a sort of decision-making possibility. This uniqueness, however, is not the feature of any particular individual, but of all human beings or of what Kant calls 'the common subjectivity'. It is a common subjectivity in which we can all participate. All human beings are potential to undertake decisions or meet decisions. This does not mean that one must be able to arrive at decisions, but that he must *strive* for making decisions. This constant and conscious striving is the unique feature of human being as being.

The question now arises : do all decisions signify existence ? Suppose, in this moment I decide to go to a cinema or to write a letter to my friend. Then, will I be said, in virtue of these decisions, to exist ? Obviously not. The existentialists would say that these are not real decision-making activities. They only appear to be so. A decision which is the mark of existence, is always with regard to a given *situation* and this situation is never straight forward. It is complicated. To explain the complicity we may say in Kierkegaard's word 'Either-Or' that is, a dilemma. To decide for one

possibility is *ipso facto* to renounce every other possibility, that was open in the situation. Every decision thus is a decision against as well as a decision for ; and every decision limits the range of possibilities that will be open for future decisions.⁶ The question of decision thus takes us progressively to the question of context or situation. The importance of situation lies in the fact that the situation is not totally distinct from the self. The self is also a part of it. To quote Marcel :

"...a situation is something in which I find myself involved. ...the situation is not something which presses on the self merely from outside, but something which colours its interior states."⁷

The act of taking decisions in a proper situation will, however, have no meaning if the individual has no freedom. So the question of decision takes us regressively to freedom. Only at the moment when the individual chooses himself as a relation which is a possibility for himself does his freedom come into existence. But even then freedom has an abstract character, because the individual chooses himself as a finite being who is faced with an infinite ethical requirement. The individual merely chooses himself as possible. That is, he does not choose himself as something in particular, for example, as father, teacher, musician, military-General etc, but he chooses himself in the much more abstract sense of being a finite being who is faced by an absolute and infinite ethical requirement. In this choice of his *was-sein*, then, he chooses himself as freedom. It is the acceptance of oneself as radically free and responsible for oneself, and it is a choice made possible by the previous determination of consciousness.⁸

When we make a decision we experience a feeling of anxiety or despair for we are every moment afraid that the decision may be wrong. The existentialists believe that the self makes the choice in the height of despair, i.e. when everything has lost its value and there is nothing left outside of himself to choose. He is, therefore, in his despair driven towards his absolute self.

Hence, an individual is not given ready-made at the beginning. One could even say that to start with, the individual is, as it were, nothing. Or in other words, what is given is a field of possibility, and as the existent projects himself into this possibility rather than that, he begins to determine who he will be.

With Heidegger, the position is a bit different. He thinks that the uniqueness of human existence lies not in the decision-making activity

but in the Dasein's possibility towards death. Human being alone is aware of his possible death and herein lies his uniqueness. Though Heidegger gives emphasis on the possibility of death, he does not try to ignore the role of choice in human existence. He rather tries to connect the two. According to him, death is the supreme possibility of human existence or to put it in his own words, it is the possibility of the impossibility of any existence at all.⁹ And a possibility is a mode of existence which the Dasein can choose and into which he can project himself. Therefore, it follows that death is a mode of existence which Dasein can choose. What Heidegger wants to emphasise by the possibility of death is the *anticipation of death*, realistic inclusion of the death-factor among our projects and the way we evaluate them. Although death is not an 'end' in the sense of a goal or fulfilment, it is a limit to existence. To become aware of death and to accept mortality is to become aware of a boundary to existence. Awareness of such a boundary does enable one to think of existence as a finite whole.

We are now able to arrive at some fundamental characteristics of human existence. The first basic characteristic of existence is its emergent, ecstatic, transcendental elusiveness. Most objects in the world can be described in terms of a few fixed characteristics. A metal, for instance, can be described as hard, as black, as having such and such a weight etc. But man is not constituted by some given properties. He thrusts himself into the possibilities of existence. The second basic characteristics of existence is the uniqueness of the existent individual. An existent is not just an 'it'; the existent says 'I' and in uttering this personal pronoun lays claim not 'just' to a unique place and perspective in the world but to a unique being. My existence is unique and different from that of anyone else. I am I. And to say this is not to utter a mere tautology. It is an assertion of my unique individual being as an existent who stands out as this existent and no other. It is a uniqueness of a distinct order and consists in the felt 'mineness' of that 'existence' which knows itself as 'I'. The third basic characteristic of existence is self-relatedness. The existent is on his way as the unique person that he is. To exist as a self is to stand in the possibility of becoming at one with oneself of fulfilling oneself or of being divided in oneself, separated from what everyone knows how to call his 'true self'. In the language of the existentialists these two possibilities are to exist 'authentically' or 'inauthentically'.¹⁰

A problem arises at this point. If my choice, my freedom, my feeling of despair determine my existence, how do I know that other people exist. I cannot see his decision, nor can I feel his anxiety. What I observe is his external behaviour which is similar to the behaviour of a machine. So, how do I know that other people are not machines, but are human beings, and that they exist just as I do? To solve such a problem let us consider a story. Suppose a man while passing by enters into another man's house. He finds a room full of books. He gets interested, enters the room, shuts the door and looks at the books. Suddenly he hears footsteps in the stairs. He comes to the door and sees through the key-hole that another man is coming. At once he feels ashamed.

The point of the story is to bring out the difference which comes about in the man at the moment he is ashamed. He is altered, says Sartre, in the structure of his being. The moment we realise that we are under observation we are supposed to understand the philosophical truth that we exist, essentially in relation to other people. Other people are not, as Descartes thought, 'merely coats and hats for us, beneath which we have to infer the existence of beings rather like ourselves.'¹¹ People exist in a full-blooded way and we know it directly and without inference of any kind, for we know that we ourselves would exist differently if they did not. The knowledge of their existence is part of our knowledge of ourselves. Our feeling of shame for example, constitutes the proof that other people exist. To quote Sartre : "The man is defined by his relation to the world and by his relation to myself. He is that object in the world which determines an internal flow of the universe, an internal haemorrhage. He is the subject who is revealed to me in that flight of myself towards objectivation."¹²

A further problem is that, if choice is the determining factor of our existence, there will be no place for morality or order in the society. Even if a man steals or kills another person we cannot say that he has done something wrong. We have to regard him as an authentic man because he has really chosen to be a thief or decided to kill the person. If all people justify themselves in this manner the society will collapse. How can the existentialists solve this problem?

Sartre solves this problem by holding that our present way of evaluating things as good or bad is not proper. There is no absolute 'good' or 'bad' values. A thing becomes good or bad as we choose it. In *Being and Nothingness*¹³ he seems to be saying that we must

each decide for ourselves how to live, what is good and what is bad, and that is purely a personal decision, which no one can take on behalf of another. But, Sartre's view is open to criticism. For, if a man judges sincerely that tax vexation is wrong, he judges or at least believes that it is wrong absolutely. To say of something that it is wrong is not to describe one's personal feeling about it. Wrong means wrong in general. So it will not be perhaps correct to say that values depend on our personal decision.

It is possible to solve the problem by saying that the existentialists do not deny that killing is bad, or stealing is bad. What they want to emphasise is the individual's mode of choosing. When they regard man as authentic, they do so not on the basis of the object of choice, but on the basis of the way how the individual chooses. In Kierkegaard's words :

"In making a choice it is not so much a question of choosing the right, as of the energy, the earnestness, the pathos with which one chooses."¹⁴

A man may choose one path or another, and the consequences of his choices will be subjected to reward or punishment. The existentialists are concerned not with these consequences but with the act of choosing. They do not also claim that one would always make the right decision. One may even err in his decision. What the existentialists want to impress on us is that even if a person meets a wrong decision, but if in meeting the same he acts consciously, i.e., by taking the whole responsibility on himself, he will be said to exist. On the other hand, a man who has possibly never, say, done a wrong, but carries out all his actions under the direction of other people, cannot be said to exist. In fact, it is the whole question of responsibility that matters most. And Existentialism, as a philosophy is, after all, a call upon the individual to embrace a mode of being, namely, that of a committed individual.

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BEING IN IN ARISTOTLE AND NAVYA NYAYA

SHIVJIVAN BHATTACHARYA

I *Aristotle's Theory*

Aristotle in his *Categorise*¹ introduces an important distinction among things-in-themselves and subsequently divides them in four fundamental classes. The key-terms of this distinction are 'being predicable of or said of a subject' and 'being present in a subject'. By 'being present in a subject' he does not mean one present in a whole as its parts but one which is incapable of existence apart from the said subject. Accordingly, of things themselves (i) some are predicable of a subject and are never present in a subject. Thus man is predicable of a subject i.e. individual man, but never present in any subject ; (ii) some things are present in a subject but are never predicable of subject. For, a certain point of grammatical knowledge is present in the mind, but is not predicable of any subject ; (iii) some are both predicable of a subject and present in a subject. Thus, while knowledge is present in the human mind, it is also predicable of grammar. (iv) Finally, there is a class of things which can be neither predicable of a subject, nor present in a subject, for example, the individual man or individual horse. Generally, it can be said that things which are individual and numerically one can never be predicated of a subject. But some individual things are present in a subject, namely, a piece of grammatical knowledge which is present in a mind.

J. L. Ackrill² comments that Aristotle's four-fold classification of thing depends on two phrases—"being said of something as subject" and "being in something as subject". He holds that the second phrase serves to distinguish qualities, quantities and the elements of other dependent categories from substance which is said to possess independent existence. The former distinguishes species and genera from individuals.

According to some commentators of Aristotle, 'being said of' and 'being in' happen to introduce two different notions, the former being linguistic or grammatical and the latter metaphysical or ontological. Hence the word 'subject' in 'being said of a subject'

signifies grammatical subject and in 'being in a subject' the substrata or metaphysical subject. But Ackrill holds that it is evident that Aristotle's four-fold classification is a classification of things, not of names. For him, being said of a subject is no more a linguistic property than being in a subject. If virtue is said of generosity as subject, the sentence 'generosity is virtue' expresses a truth in which 'generosity' is the grammatical subject. But the sentence is not about names 'virtue' and 'generosity'. It is absurd to call generosity a grammatical subject. Again if A is present in B as subject than B is a substance. But this does not amount to saying that 'subject' in 'being in a subject' means a substance or substrata. According to Ackrill, 'subject' means neither grammatical subject nor substance, but is a mere label for what has anything 'said of' it or 'present in' it³.

According to Aristotle whenever one thing is predicated of another as of a subject, all that which is predicable of the predicate will be predicable of the subject also. For example, man is predicated of the individual man and animal of man, so animal will be predicated of the individual man also, for the individual man is both a man and an animal. So, for him, the relation *being predicable of* as well as the relation *said of*, is transitive.

Aristotle holds that every simple expression signifies either a substance of a quality or a quantity, relation, place, time, position, state, action or affection. The terms 'man' or 'the horse' fall under the category of substance, the attributes 'white' 'grammatical' under that of quality; 'two cubits long', 'three cubits long' under the category of quantity; 'double', 'large', etc. under that of relation. The examples of the category of place are such terms 'in the market place', 'in the school', etc.; of time 'yesterday', 'last year'; of position 'lying', 'sitting', etc.: examples of state are 'shod', 'armed', etc.; of action 'cutting', 'burning', etc. and the examples of category of affection are such terms as 'to be lanced,' 'to be cauterized', etc. According to H.W.B. Joseph⁴ the word 'category' means predicate and the categories may be described as the list of predicates.

In Chapter S, of the *Categories*, Aristotle draws an important distinction between a primary and a secondary substance by saying that substance in the truest, primary and in most literal sense of the word is that which is neither predicable of a subject nor present in a subject, for instance, the individual man or horse. Secondary substances are those to which as species, the primary substances

belong and also the genera of those species. For instance, the individual man belongs to the species man and animal is the genus of the species. So both man and animal are to be regarded as secondary substances.⁵

It is evident that if something is said of a subject, both its name and its definition are necessarily predicated of the subject. For instance, 'man' is predicated of the individual man. Now in this case the name 'man' is applied to the individual, for we use the term 'man' in describing the individual. The definition of man will also be predicated of the individual man, since the individual man is both man and animal.

On the other hand, Aristotle maintains with regard to things which are present in a subject, in most cases neither the name nor the definition is predicated of the subject. In some cases, though, the names of such things are predicated of the subject. For instance, the colour white is present in a body and a body is called white. But the definition of white will not ever be predicated of the body.

Aristotle claims that only a primary substance is capable of independent existence and that the existence of the things of the other categories is dependent. Thus he says : "Every thing except primary substances is either predicable of a primary substance or present in a primary substance. This becomes evident by reference to particular instances which occur. 'Animal' is predicated of the species 'man', therefore of the individual man, for if there were no individual man of whom it could be predicated, it could not be predicated of the species man at all. Again, colour is present in body, therefore in individual bodies, for if there were no individual body in which it was present, it could not be present in body at all. Thus everything except primary substances is either predicated of primary substances, or present in them, and if these last did not exist, it would be impossible for anything to exist".⁶ So, for Aristotle, primary substances are basic and the existence of secondary substances presuppose the existence of primary substances. Thus the difference between the primary and the secondary substance is that the primary substance is the ultimate subject that can be predicated of nothing else.

When Aristotle says 'called a substance most strictly, primarily', does he mean 'substance' is used in two different senses ? "But if

we tend to interpret him thus it would upset his whole scheme of categorical classification."⁷ Ackrill holds that Aristotle is certainly aware that the distinction between primary and secondary substance is not like that between two categories or that between two genera in a category, but he fails to explain clearly the nature of this distinction. Ackrill further points out that when Aristotle states that when something is said of a subject both its name and its definition are necessarily predicated of the subject, the relation of 'said of' holds, not between words but between things. To say that A is said of B is not to say that 'A' and the definition of 'A' are predicable of B. The latter is a fact about language which follows from the fact about a relation between two things.

Aristotle holds that it is a characteristic common to every substance not to be present in a subject. For a primary substance is neither said of a subject nor present in a subject. Secondly substances also are not present in any subject. For man is predicated of the individual man, but is not present in any subject; since manhood is not present in the individual man. Moreover, it has been said above that when a thing is present in a subject, though the name may be applied to that in which it is present, the definition can never be applied. But the definition of the secondary substance as well as the name are predicated of the subject.

Akrill says that the phrase 'being in', as used by Aristotle, can be taken to mean that A is in B if and only if (a) one could usually say in ordinary language either A is in B or that A belongs to B, (b) A is not part of B and (c) A is inseparable from B⁹. So when Aristotle holds that the secondary substance is not in primary substance he does not mean that a secondary substance can exist separately from the primary substance or that a given secondary substance can exist separately from any given individual. Rather he seems to mean that in ordinary speech we can never say man is in Callias. Ackrill points out that if this is the implication, the same thing can be said of genus and species of other categories too, for no genus and species in any category can naturally be described as in any subordinate genus, species or individual. So the distinguishable mark of secondary substances should be that they are not in any other species, genera or individual, not that they are not in subordinate species or genera or individual. For example, virtue is not in generosity but it is in soul, while animal is not in man and not in anything also either.

II *Nyaya Theory*

According to Nyaya, 'being in' designates a relation of a special type. This relation is often identified as the object of the knowledge that *a is in (on) b*. Whenever we know something to be in something the two things must be related by a special type of relation. For we do not know that one thing is in the other whenever they are related. For example, if we know that A is the father of B, then although A and B are related still we do not know B to be in A. Thus according to Nyaya, the first necessary condition of knowing or saying that something is in something is that the two things must be related by a special type of relation. Nyaya calls this type of relation occurrence-exacting relation (*vṛtti-niyāmaka-sambandha*). Thus all relations are not occurrence-exacting, all and only those relations which produce the cognition of one thing in another are occurrence-exacting relations. 'Being in' in Nyaya means different things in different contexts—(i) being physically contained in (ii) belonging to (as when a quality belongs to a substance, it is said to *be in it*).

Occurrence-exacting relations may obtain between various sorts of ontological entities. We may say, for example, that milk is in the glass, or that the things are in the box, where both the first and the second terms of the relation *being in* are things or substance. Even a primary substance like John may be said to *be in* the room. Thus the Nyaya concept *being in* is much wider than the Aristotelian concept.

The first terms of occurrence-exacting relations which produce the cognition of the form '*a is in b*', are called 'properties of the second terms' (*dharma*), and the second terms are called 'property-possessing' (*dharmi*). So every property *is in* that which possesses it. Thus we have the definitions :

Df. 1. *x is in y* = xR_0y , where R_0 is an occurrence-exacting (*x is a property of y*) relation.

Df. 2. *x is y-possessing* = yR_0x

Thus *possessing a property* is the converse of *being in*.

To say that *y is in x* is to say that *y* is a property of *x*, or to say that *x is y-possessing*.

So far *being in* has been explained as the relation which is the object of a certain type of cognition, namely, '*a is in b*'. Now

according to Nyaya, every true cognition represents facts as they are ; so there must be something factual corresponding to every true cognition of *being in*. According to Nyaya, this ontological fact is the relation between a container and the contained or the content. When we know that John is in this room then this room is the container (*adhara*) and John is the contained (*adhaya*). Thus when one thing is in another it is obvious that the one contains the other literally, in a very straightforward manner. But according to Nyaya not merely things which are substances (primary substances in the sense of Aristotle) but also entities of other ontological categories can be said truly to *be in* something. In such cases either the first term or the second term of the relation is dependent ontologically on the other. This theory is in contrast with the Aristotelian theory that only the first term of *being in* is a dependent entity. Thus according to Aristotle, if *a* is in *b* then *a* is ontologically dependent upon *b*. But according to Nyaya, there may be cases where *b* will be dependent upon *a* ontologically even though *a* is in *b*. We have already stated that Nyaya uses the terms 'container' and 'contained' to denote the two things (substances) which are the two terms of the relation *being in*. Now when this relation is generalized to obtain between entities of different categories Nyaya uses the terms 'locus' (*adhikaraṇa*), 'substratum' (*āśraya*) to denote the second term and the term 'superstratum' (*āśrita*) to denote the first term. Thus when we know that *a* is in *b*, *b* is the locus or the substratum of *a* which is the superstratum of *b*. Now in such a case *a* may be a quality, say, a colour-individual, and *b* is the thing (substance) which possesses this colour. Here *a* is the dependent entity and *b*, the substance, the independent entity. Ackrill has stated that according to Aristotle man cannot be in any individual but according to Nyaya humanity can be present in every individual man and so in this particular man too. Yet humanity being a universal according to Nyaya is an eternal property and hence cannot be dependent on this individual which has it. Thus although, according to Nyaya, we can correctly say that humanity is in John, yet it is not humanity which is ontologically dependent upon John, rather it is the other way around, for it is John who is ontologically dependent upon humanity because without humanity John will not be John. Thus in many cases, instances of a universal are ontologically dependent upon the universals which are their essences, and hence cannot be what they are without the universals being present in them,

According to Nyaya, we get the following characterization of the relation, *being in*.

General characterization—*Being in* is a relation between objects such that one object is known as being in the other. These objects may both be substances or one or both may belong to other categories. Thus a particular colour-individual is an instance of the corresponding colour-universal and we may say, for example, that redness is in this particular red colour, where both the terms belong to ontological categories other than substance (*dravya*).

A special type of *being in*—For this special type of *being in* an additional condition of inseparability of the two terms is introduced (*ayutasiddha*). But this inseparability is only one-sided and not mutual. Again either the first term or the second term of the relation cannot be what it is outside the relation. This theory of Nyaya goes against the Aristotelian theory that if *a* is in *b* then *a* alone is the dependent entity in every case. Now this special form of the relation, *being in*, is inherence-converse (*samavāya*) of Nyaya. Aristotle has explicitly affirmed that *being in* cannot be a relation between whole and parts of a thing. Yet according to Nyaya the whole inheres in its parts and can be truly said to *be in* its parts, in this case, because the whole is dependent ontologically on its parts, although the parts are ontologically independent of the whole. In Sanskrit, the language which Nyaya uses, the idiom of 'being in' is the opposite of English usage. Thus in English one says that the parts are in the whole, whereas in Sanskrit one says that the whole is in the parts. And because of this difference in usage Nyaya can hold that the relation of the whole to its parts in inherence—the whole inheres in its parts, is in its parts.

In comparing and contrasting Aristotle's theory with the Nyaya theory we should note a point. According to Aristotle, primary substances can never be in any subject and also cannot be predicated of a subject. We have already seen that according to Nyaya even primary substances can be said to be in another in the more general sense. Even in the specialized sense a primary substance like John may be said to be in his limbs according to Sanskrit idiom. Yet Nyaya too excludes eternal substances from ever *being in* anything. The universals which are eternal entities can be said to be in their particulars, because according to Nyaya they are not eternal substances but belong to a special ontological category of their own. No eternal substance can ever be in anything. Thus

corresponding to Aristotle's primary substances, Nyaya admits eternal substances which cannot be in anything. Aristotle further restricts primary substances from being even predicates of a subject ; Nyaya does not have any such restriction.

III *Importance of Being in for Indian Logic*

A fundamental difference in the method of analysing inference (specially syllogism) between Aristotle and Indian philosophers in general, and Nyaya philosophers in particular, becomes evident when we note that Aristotle uses the relation of subject and predicate to analyse inference in order to reveal its logical structure while in Indian philosophy in general the relation of *being in* is used for the same purpose. "...if you take syllogisms as pure rules stated in letters, e.g. 'a is predicated of all b, b of all c, therefore, a is predicated of all c', as do the Peripatetics following Aristotle, then you treat Logic as an instrument of philosophy".¹⁰ "Aristotle always puts the predicate in the first place and the subject in the second. He never says, 'all is A', but uses instead the expression 'A is predicated of all B' or more often 'A belongs to all B'."¹¹

Here we should note one point. Ackrill has asserted that "A is in B (in the technical sense) if and only if (a) one could usually say in ordinary language either A is in B or that A is of B or that A belongs to B or that B has A (or that...)..."¹² But Lukasiewicz, Bochenski and other historians of logic hold that Aristotle uses the expression, 'A belongs to B' in the sense of 'A is predicated of B'. But as Ackrill uses 'A belongs to B' in the sense of 'A is in B', it is obvious that according to Ackrill Aristotle's use of 'belong to' must be in a technical sense, for, according to Ackrill, 'in ordinary language', 'belongs to' is used to mean 'being in' rather than 'is predicated of'. Why Aristotle uses the subject-predicate relation instead of *being in* in the analysis of sentences like 'All A is B' occurring in syllogisms should be obvious, for according to him, it is the subject-predicate relation, not the relation *being in*, which is transitive, and transitivity of the relations stated in the premises is what justifies the syllogism. Hence the relation *being in* could not have been used by Aristotle in analysing sentences like 'All A is B'.

In Indian philosophy, however, it is the relation *being in* which plays the most important part in the logical analysis of inferences.

In Indian theories the terms 'dharma' and 'dharmi' are universally used in determining the 'terms' of inference very roughly corresponding to major, middle and minor terms of traditional Western syllogism. Yet it is obvious that without transitivity of the relation holding between the terms of a syllogism, it cannot be justified. Hence the Indian analysis of inference using the relation *being in* is radically different from the traditional analysis of Western logic. The terms corresponding to the major, middle and minor terms of Western syllogism are '*sadhya*' (*s*), '*hetu*' (*h*) and '*pakṣa*' (*p*). We give below a very rough sketch of inference as analysed in Indian philosophy.

- Ind. Inf. 1. 1. $(x)(xR_0^1 h \supset xR_0^2 s)$
 2. $pR_0^1 h$
 3. $\therefore pR_0^2 s$.

Where R_0^1 and R_0^2 are occurrence-exacting relations so that ' $pR_0^1 h$ ' means that *h is in p* by R_0^1 . The inference is valid even though neither R_0^1 nor R_0^2 is transitive. The validity is assured by the logical nature of the relation which I have very roughly end, for some Indian systems, incorrectly, represented by ' \supset '. In an inference of the form

- Ind. Inf. 2. 1. $(x)(xR_0^1 h \supset xR_0^2 j)$
 2. $(x)(xR_0^2 j \supset xR_0^3 s)$
 3. $\therefore (x)(xR_0^1 h \supset xR_0^3 s)$.

the transitivity of ' \supset ' guarantees validity of the inference. The sentence which I have symbolized by ' $(x)(xR_0^1 h \supset xR_0^3 s)$ ' expresses the relation of *pervasion* between *h* and *s*. Thus although the terms of the inference, *s*, *h*, *p*, are analysed by using the relation *being in*, still the validity of the inference is logically determined by the relation of pervasion between *h* and *s*. And as it is obvious, the relation of pervasion is transitive—the pervader of the pervader of something is its pervader—inferences like Ind. Inf. 2. are validated. These inferences correspond, although very roughly, to Barbara, even though the manner of determining the terms in Indian philosophy is completely different from the Western method.

Now we shall show a difference in the method of analysis of an inference into its terms as found in Dharmakīrti's logic and Navya-Nyaya. First we note that Dharmakīrti uses the terms 'substratum'

and 'property' uniformly in its definition of 'object of inference' (*anumeya*) ; 'similar case' (*sapakṣa*), 'dissimilar case' (*vipakṣa*). "The object (cognized) in inference is here the substratum whose property it is desired to cognize".¹³ Then about *similar case* Dharmakīrti gives the following definition : "A similar case is an object which is similar though the common possession of the inferred property".¹⁴ A *dissimilar case* is defined negatively as that which is "different from a similar case, contrary to it, or its absence."¹⁵ Thus in the definitions of the key-terms denoting the parts of the objective complex known in inference Dharmakīrti uses the relation *being in* which is built into the concepts of substratum and property.

We shall however note an important point of difference between analyses of Dharmakīrti and Navya-Nyaya philosophers of cognition expressed in sentences of the form 'A is B'. Analysing the inferences for one's own sake (*svārthānumāna*).

This is a tree because of being a *simsapa* (a kind of tree).

Dharmakīrti, as interpreted by Dharmottara, holds *this* to be substratum of the inference (*p*) and *tree* to be the *s*.

Dharmottara interprets the inference to mean

This can be called 'tree', because it can be called '*simsapa*'.
 "(...this object is fit to be called a tree, because it is fit to be called an Asoka)".¹⁶

This contrast with Navya-Nyaya analysis of conclusions of the form 'A is B'. Raghunatha, for example, says that the conclusion 'this is a cow' may be interpreted in two ways in both of which *this* remains the *p* of the inference but the *s* is different in the two cases. In one case *cow* is the *s*, whereas in the other it is *cow-ness*. Raghunatha however points out that in the first case the relation obtaining between *p* and *s* of the inference is the relation of identity—this thing is identical with a particular cow. But in this case, *cow* cannot be regarded as a property of *this* because identity is not an occurrence-exacting relation. If *a* is identical with *b* then *a* cannot be said to be in *b*. On Dharmottara's interpretation, however, the property, *being fit to be called a tree*, is the *s* of the inference and this property can be said to be in *this*. Yet it is not clear why the inference has to be interpreted in the way Dharmottara recommends. The conclusion may mean that this thing is identical with the particular object (cow) where the relation obtains between two objects and not the namability of one object in two ways—once by 'tree' and again by '*simsapa*'.

Ragunatha could use the identity relation between p and s of an inference because he analysed inference not in terms of substratum and property (*dharma* and *dharmi*) but in terms of a relation (*sambandhi*). He points out that the scheme of the rule of inference :

1. $(x)(xR^1h \supset xR^2s)$
2. pR^1h
3. $\therefore pR^2s$

remains valid even when R is not an occurrence-exacting relation.

Ragunatha also gives a second interpretation of the conclusion, 'this is a cow' using the relation of inherence so that although *this* remains the p of the inference, *cow-ness* now becomes the s of the inference. Inherence, being an occurrence-exacting relation can be used to analyse the conclusion into a substratum (p) and the property (s) which is cow-ness ; for cow-ness can be said to *be in* this cow.

This difference between Dharmottara and Ragunatha suggests that the exact definition of *being in* in terms of an occurrence-exacting relation was formulated by Navya-Nyaya philosophers who came historically after Dharmottara. Buddhist logicians like Dharmakirti and his commentators uniformly use the terms 'dharma' and 'dharmi' in their analysis of inference without giving an exact definition of these terms.

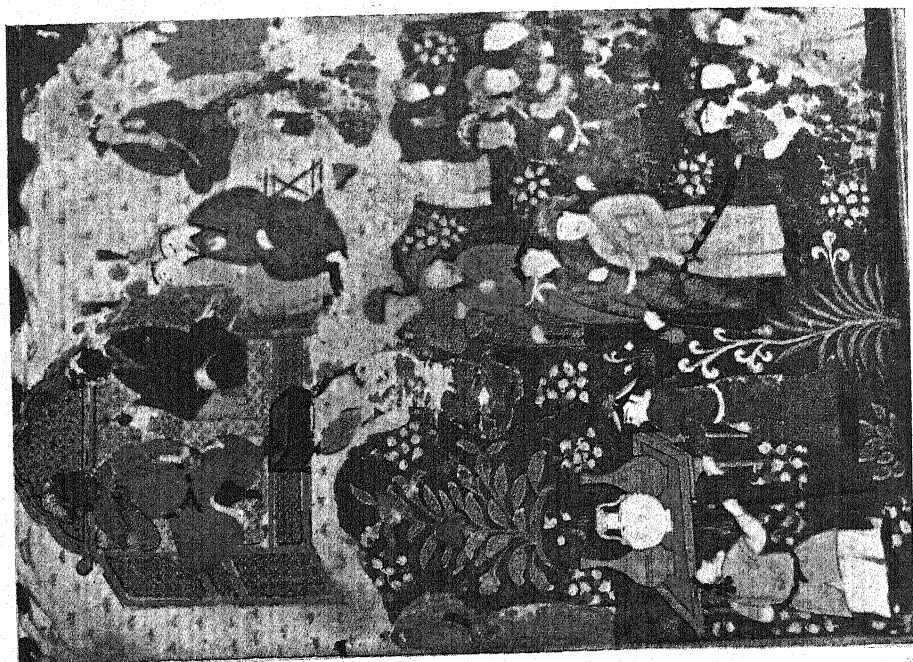
Notes

- 1 "Aristotle's Categorise", tr. J. L. Ackrill in *Aristotle* ed. by M. Em Morausik pp. 90ff.
- 2 *Ibid.*, pp. 103-104.
- 3 *Ibid.*, p. 106.
- 4 *An Introduction to Logic*.
- 5 *Categories*, 5, 1^b 15.
- 6 *Categorise*, Chap. 5, 2^a 35 - 2^b 5.
- 7 *Ibid.*, p. 113.
- 8 *Ibid.*, p. 106.
- 9 *Ibid.*, p. 104.
- 10 J. Lukasiewicz, *Aristotle's Syllogistic*, p. 13.

- 11 *Ibid.*, p. 3.
 - 12 J. L. Ackrill, *Aristotle's Categories*, Chapters I-V, translation and Notes, in *Aristotle* ed. by J. M.E. Moravcsik, p. 104.
 - 13 Th : Stcharbetsky, *Buddhist Logic*, Vol. II., 1958, p. 58.
 - 14 *Ibid.*, p. 59.
 - 15 *Ibid.*, p. 59.
 - 16 *Ibid.*, p. 67.
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नृपराटोका पीरबापोननीदिनी जीहसकियंवारदारानतहैबसो
 सोममलविजातकीनकमलोपगानेकेविषयमारखोकाकीनोतलकक
 पनमालनतलकराहो विरियोककरहोएकपनापोनसोय सा
 ननविपोतापरेयानुपुनितदुनिलेस प्रेमप्रपननी प्रविट
 मारीतमसबापाकेयेकहोसमनेनीकोइदुपताकोइएपदतलपरा
 सकोअमोसककोकायारहोएकनकोपदपुनतलपराकायसनेकेअ
 नोकेदुपेविमोतेपानामविहोकोकोकोअपुनसिखेदपुपानाम
 एकमिलनेहोअपुनमारोकोनामकसनेतननकोकोपरेतो
 नोहोएतलनकीया प्रविमिपरेतोनामनकोहोकोकोकोकोकोकोको
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Jameut-Tawarikh



Sah-Nama

A NOTE ON THE 'GOURĀṄGACANDRODAYA'

MANABENDU BANERJI

There was a tendency among the Bengal Vaiṣṇavas, particularly those who were devoted followers of Gaurāṅga, popularly known as Caitanya, to compose Sanskrit works on the latter's supreme reality and to place those works in hoary past to show that from very ancient times the appearance of Gourāṅga on the earth, as an Avatāra of the Supreme God, had been prophesized by the sacred texts, such as, the Upaniṣads and the Purāṇas. These Vaiṣṇavite works are often modelled on the aforesaid sacred texts, but the inefficient imitation of their language and temper, and the peculiar characteristics of the subject-matter cannot in any way convince modern readers about their far antiquity. On the other hand, it seems that the Bengal Vaiṣṇavas were afraid of the incredulous people who might have some disbelief in Caitanya's divinity ; so the utmost attempt of the *bhakta-s* was to establish anyhow the supremacy of Caitanya even by quoting and interpreting the authorities of the sacred texts. For this reason the *bhakta*-authors took much efforts to push back their treatises dealing with the greatness of their Master (Caitanya) to the epical and Purāṇic period. Of course, the *bhakta*-authors were successful in keeping their names unexposed. Modern scholars of keen insight may have some hesitation in accepting such mythical themes, for, the outlook of a devout devotee naturally differs from that of an objective historian. The follower-scholars of Caitanya of the 16th century were not lacking in historical sense, yet they did not hesitate in incorporating the mythical stories centred round the Master in their works. For, belief is a thing of different sphere.

The Gaurāṅgacandrodaya¹ (GC) written in Purāṇic style is alleged to have been included in one of the Chapters of the Vāyupurāṇa. The anonymous author, in the concluding line of this work, says that this work is included in the fourteenth *adhyāya* of the last Canto of the Vāyupurāṇa.—*iti śrīvāyupurāṇe pāramahamṣyām saṁhitāyām vaiyāsikyām śeṣakāṇḍe gaurāṅgacandrodayo nāma caturdaśo'dhyāyaḥ*. But on simple reason this chapter cannot

be found in the available texts of the Vāyupurāṇa. It is true that there is much anomaly about the date and nature of the Vāyupurāṇa. The Vāyu-p. is often treated to be identical with the Śivapurāṇa, as a major portion of the work deals with the glory of lord Śiva. There is, however, a Śivapurāṇa which is quite a different work and has been included in the list of the Upapurāṇas. Regarding the class to which the Vāyupurāṇa belongs, there remain different unresolved views. Rajendralal Mitra states, "The Matsya and the Bhāgavat Purāṇas reckon it (Vāyu-p.) among *mahā-* or 'the great' Purāṇas, while others relegate it to the class of minor or Upapurāṇas. Even its name is not free from confusion arising out of sundry aliases".² The actual time when this Purāṇas was composed is surrounded in considerable obscurity. There are references to the Vāyupurāṇa in the Mahābhārata and the Harivaṁśa, and in many cases the Harivaṁśa has literal affinities with the Vāyupurāṇa. That the Vāyupurāṇa existed before Bāṇabhaṭṭa, who belonged to the first half of the 7th century A.D., is sufficiently proved by his statement that he had heard the musical recitation of this Purāṇa.³ In this Purāṇa there is a reference to the rule of the Gupta kings of the 4th century A.D. These facts have provoked Dr. Winternitz to fix approximately the date of this Purāṇa round about 5th century A.D.⁴ R. G. Bhandarkar is also of the opinion that "The Vāyupurāṇa, which is the earliest work of that class, must have been written about the fifth century".⁵

The thought that the seed of the future advent of Caitanya as an incarnation of Lord Viṣṇu lies in the Vāyupurāṇa seems, however, to be absurd. Contemporary records with reference to the incidents narrated in Purāṇic literature, are not in many cases available, for the Purāṇas have undergone much corruption because of passing through several hands. It is not improbable that several chapters were interpolated in them even after several centuries of their composition. To illustrate this point, we may quote here the statement made by H. C. Raychaudhuri—".....the Vāyupurāṇa known to the Mahābhārata (III. 191.16) was different from our present text. The passages from the Purāṇa quoted in the epic do not agree with the corresponding passages of the extant work".⁶ So it is safe to believe that the Gourāṅgacandrodaya, written probably at a period when Caitanya was held by his followers as a god himself or the incarnation of Viṣṇu, was produced through

the effort of an ambitious scholar who intended to place it amongst the sacred texts and he selected, to fulfil this purpose, the Purāṇa, namely Vāyu, which is the most controversial of all times and the true nature of which is yet to be justified. The intention of the author was, however, pious, for, being probably embarrassed by the adverse comments of some unbelievers in the divinity of Caitanya, he made his mind to present the Master as the direct incarnation of Lord Viṣṇu ; but in this matter he sought the help of the authority of the Purāṇa on which general people have always great faith and respect. Devoted followers of Caitanya, perhaps, thought that as a great man only Caitanya might not have imposed enough sense of regard on suspicious persons, but when his great and divine personality was made to forecast through a holy scripture—thus making him a great god—he could certainly be easily accepted as a superhuman being. This is probably the reason behind an attempt at the insertion of the GC in the Vāyupurāṇa.

The GC is written completely in verse, comprising of sixty six śloka-s. It is in dialogue form—a conversation between Śatānanda and Gautama—the former being the chief speaker. The author of the GC states that the contents of this text, which are concerned with the Avatāra-doctrine of Gaurāṅga, are included in the 'Śatānanda-Gautama section' of the Vāyupurāṇa. It is thus a justification for the divine origin of Gaurāṅga who is believed by his *bhaktas* to be the incarnation of Lord Viṣṇu. Śatānanda wanted to know from Gautama as to how the human beings of the Kali era, who were prone to evil intentions, would be able to be relieved of the griefs ; the Kali era was full of sorrows ; there was no performance of religious austerity, sacrifice, meditation, perfect intellectual, demonstration, and unconditional gift ; and longevity was completely absent in this dark age.—

nā tapaśca nā cejyā ca nā dhyānaṁ jñānaṁ avyayam/

kenopāyena nistāro bhaviṣyati kalau yuge/ (verses 2-3).

Gautama appreciated Śatānanda for this most mysterious (*guhyāt guhyatamam*—verse 4) query and informed him that in remote period a similar question was put by Brahmā to Lord Viṣṇu (v. 5). Gautama then narrated the following incidents of the past—One day goddess Earth, perceiving that the human beings in future would be sinful, crooked, quarrel-loving, devoid of Vedic studies, unfaithful to the gods and respected guests, ever

desirous to take away other's property and so on, became very much perturbed and assuming the form of a cow, approached the abode of Brahmā and constantly wept in front of him. With her choked voice she reported to him her perception of the disastrous situation of the coming days (verses 7-11). She said that the advent of the would-be sinners made her structure shaken in fear (*teṣāṃ pādaprahāreṇa kampate māmakī tanuḥ*—v. 12). So saying, the Earth requested Brahmā to do something so that her mental piece might be restored (*tad eva kuru deveśa yena śāntir-bhaven mama*—v. 13). Moved by her wailings, Brahmā went to Vaiṣṇu and reported all to Lord Viṣṇu (verses 15-19); Brahmā requested the Lord to save the Earth from forthcoming calamities and Viṣṇu assured him of his help.

Thereafter Viṣṇu directed his subordinated deities to be born on the earth as the *bhakta*-s and he told them that along with the *saṁkīrtana* festivals in the Kali age, he would descend on the earth as the son of Śacī.—

*divijā bhuvi jāyadhvaṁ jāyadhvaṁ bhaktarūpināḥ |
kalau saṁkīrtanārambhe bhaviṣyāmi śacīsūtaḥ ||* (verse 28).

In this connexion he expressed that in the Kṛtayuga his pleasure was through *japa*-s, in the Tretāyuga through sacrificial rites, in the Dvāpara through his followers' servitude towards him and in the Kali era his satisfaction would be from *saṁkīrtana* festivals.—

*krte japair mama prītis tretāyāṁ homakarmabhiḥ |
dvāpare paricaryābhiḥ kalau saṁkīrttanair api ||* (verse 29)¹.

Brahmā wanted to know the definition of *kīrtana* which was to cause so much pleasure to the Lord.

Viṣṇu replied, *saṁkīrtana* was the most substantial of all religious activities; it was accompanied by the sound of *Mrdaṅga* and the clapping of hands; it was a peculiar type of devotional singing with due stress on accent and being full of emotional richness (verses 31-32). Viṣṇu further assured Brahmā that for the purpose of bestowing favour on his devotees he himself would appear on the earth and there the people, overpowered by ignorance, would here through his favour, the power-infusing *śloka* (*mat-padyārkaḥ*) by which the grief-stricken beings would be relieved of the worldly sufferings. The *śloka* is—

*hare kṛṣṇa hare kṛṣṇa hare kṛṣṇa hare hare |
hare rāma hare rāma hare rāma hare hare ||* (verse 37).

The Lord declared that even a Caṇḍāla would be entitled to

become his *bhakta* if he, in his own way, could recite this *śloka* once, twice or thrice a day—

sakṛd dvis trir yathāśakti yāvajjīvam athāpi vā |

vyaharan śvapaco'pi syān mama bhakto na saṁśayaḥ ||

(verse 38).

On the other hand, if the Brāhmaṇas, versed in all the Vedas and the Purāṇas, but not respectful to the *Viṣṇu-bhakta*-s, would be deserted by all.—

sarvavedavidō viprāḥ purāṇāgamapāragāḥ |

na cenmadbhakta-bhaktās te dūre tiṣṭhanti vāritāḥ || (verse 39).

Viṣṇu further promised that he would assume the form of a *bhakta* and be always at the order of other Vaiṣṇava-*bhakta*-s, and thus he would rescue his devotees from the terrible ocean of sorrow—

bhaktarūpam ahaṁ dhṛtvā bhaktāññā-pratipālakaḥ |

matparān uddharīṣyāmi ghorasaṁsārasāgarāt || (verse 41).

Viṣṇu described the outward marks of the Vaiṣṇavas that were going to be born. They would be marked on their foreheads with the sandal-pastes (*tilakāñcitabhālāḥ*), their necks should be surrounded by garlands made of holy basil (*śrītulāsikaṇṭhikāśrītāḥ*), their armpits should contain the paintings of conch and discus (*śaṅkhacakra-lasad-vāhu-mūlāḥ*), and they were to wear loin-cloths (*kaupīnavāsasah*). The next declaration of the Lord was that he would be born in the family of a Brāhmaṇa at Nabadvīpa on the bank of the Ganges (verse 44), to teach *Bhakti-yoga*, and for the purpose of extending his favour on the people, he, having taken the form of an ascetic, would become familiar by the name of Caitanya (verse 45). His teaching of *Bhakti-yoga* and participation in the *Kīrtana* festivals would go on simultaneously (verse 36). According to Viṣṇu, in the Kali age the Vedic rites would not be able to fulfil that purpose which could be done by the remembrance of the name of Hari.— *mannāmasmaraṇāt kiñcit kalau nāstyeva vaidikam* (verse 47). Here our author had perhaps in his mind the famous *mantra* of the Bengal Vaiṣṇavas—*harer nāmaiva nāmaiva nāmaiva mama jīvanam/kalau nāstyeva nāstyeva nāstyeva gatir anyathā ||* The Lord then made it clear to all that his place on the earth would always be there where his *bhakta*-s would be seen involving in *Saṁkīrtana* ceremonies.

Viṣṇu ordered other gods to descend on the earth and assured them again that he himself would assume the form of a Brahmin and through him the Earth would be out of fear (*dharitṛi bhavitā*)

cābhīr mayaiiva dvijadehinā—verse 49). The duties of the gods who were going to appear on the earth as the followers of the Lord were properly distributed and a list containing the names of the gods' mortal counterparts is given in several verses. Viṣṇu announced that Lakṣmī would appear as Gadādhara (verse 50). It may be pointed out here that according to Kavikarṇapūra's Gaurāṅga-gaṇoddeśadīpikā (verse 11), Gadādhara is regarded as an incarnation of Rādhā and as the *Śakti* of Caitanya. Viṣṇu requested Balarāma to be born as Nityānanda, a close associate of Caitanya, and accepting the form of Abadhūta he should preach Vaiṣṇava religious teachings ; Nityānanda was permitted to enter the domestic life being united with his wife Jāhnavī (verses 51-53). Kāmadeva was advised to be born as Dhruvānanda (verse 54).⁸ Rudra would take the form of Advaitācārya (verse 56),⁹ Nārada of Śrīnivāsa and Tumburu of Rāmānanda (verse 57). Brhaspati, the preceptor of Indra would be born as Sārvabhauma and Candra (Moon) as Vardhamāna. Vyāsa would be Keśava Bhārati who would be accepted as the *Sannyāsa-guru* by Caitanya (verse 61). Indra would also go to the earth and would be famous as the king Pratāparudra (verse 62); other gods also would take human forms and would be the devotees of Caitanya (verse 63). Lastly Viṣṇu ensured Brahmā that he, along with his followers, would return to his own domain after enjoying the life of Caitanya.

Narrating this episode, Gautama concluded his speech by saying that after receiving assurance from Lord Viṣṇu, Brahmā and other gods bowed down before him and thereafter dispersed (verse 66). Here ends the "Śātānanda-Gautama-saṁvāda of the Vāyupurāṇa", and thus the GC also comes to an end.

The above contents of the GC show that our author like many of his class, had little doubt about Gaurāṅga being an incarnation of Lord Viṣṇu—a belief which is the chief treasure of later Vaiṣṇavas. But so far as the subject matter of the available Vāyu-p. is concerned, we find that there is no scope for the inclusion of a work like the GC in it. It deals with the traditional topics of Sṛṣṭiprakaraṇa (Ch. 3), the lakṣaṇas of Purāṇa (ch. 4), the creation of gods (ch. 9), descriptions of different gods, ṛṣis, mountains, countries (ch. 45), astronomical discourses (chs. 50, 52, 53), propagation of *Yajña* (ch. 57), the genealogies of kings like Ikṣvāku, Maithila, Amāvasu, Turvasu, etc.—(Chs. 97-98), Śivapuri (Ch. 101) and the most prominent section is the Gayāmāhātmya

(Chs. 105-112). If the nature and contents of this Purāṇa are considered with an impartial outlook, it becomes apparent that there remains no justification in believing the episode dealing with the future advent of Caitanya as an incarnation of Viṣṇu, to be a portion of the Vāyupurāṇa. Śatānanda and Gautama, the containers of the episode, are quite absent in the extant Vāyupurāṇa. The learned author of the GC is always aware of using his language in the Purāṇic style; yet, if minutely observed, it can easily be distinguished from that of the Vāyupurāṇa. It is evident that the work under discussion cannot be the composition of the author or authors of the ancient Vāyupurāṇa, for, among other reasons, the idea of the deification of Caitanya cannot be presumed in so early a period. In reality, this conception started to be propounded by the Bengal Vaiṣṇavas who were the immediate followers of Caitanya.

Regarding the Vāyupurāṇa, mentioned in the GC, some important facts may be pointed out. The Purāṇas of a hoary past have not come down to us in their original forms. They have been reformed, recast and replaced through ages. Interpolations also accrued to a great measure. New myth-makings also were not rare. The Vāyupurāṇa, referred to in the GC, was perhaps such a Purāṇa.

The Vāyupurāṇa in which the Śatānanda Gautama episode is included, is not certainly the current and standard Vāyupurāṇa which has no divisions as 'Kāṇḍa-s.' But the GC, as we have seen, clearly mentions that it is included in the 14th chapter of the last Kāṇḍa of the Vāyupurāṇa. So, it is obvious that the Vāyupurāṇa of the GC is another book which originated much later during or after the descent of Śrī Caitanya. It is curious to note that the Śatānanda-Gautama legend related in the GC has been used by almost all the biographers of Caitanya, Murāri Gupta's 'Kaṇḍā' in Sanskrit, Locana Dāsa's Caitanya-maṅgala (in Bengali) and Jayānanda's Caitanya-maṅgala (in Bengali) relate the same legend. The difference lies in the fact that the GC mentions the Śatānanda-Gautama-saṁvāda of the Vāyupurāṇa, whereas Locana and Jayānanda allude it to Nārada-uddhava-saṁvāda of Jaiminiya Saṁhitā or Jaimini-bhārata.

Regarding Caitanya's appearance on the earth as an incarnation of Viṣṇu, as is described in the works of Bengal Vaiṣṇavas, we should remember that it is a common trait of the pious followers of an Avatāra or Avatāri to connect their great Master with Purāṇic myths and legends. The foremost followers of Śrī Caitanya were

renowned scholars. Scholars like Murāri Gupta, Rūpa, Sanātana, Jīva Goswāmī, Gopāla Bhaṭṭa and Svarūpa Dāmodara coined from the old scriptures the *ślokas* pre-indicating the descent Lord Kṛṣṇa as Caitanya. One of such famous *ślokas* is

—*kṛṣṇavarṇam tviṣā'kṛṣṇair sāṅgopāṅgāstrapārśadam /*
yajñaiḥ saṁkīrttanaprāyair yajanti hi sumedhasaḥ ||

(Bhāgavata, 11.5.32)

This verse is often interpreted as the harbinger of Kṛṣṇa's advent in the form of Śrī Caitanya. In this way the avatārship of Śrī Caitanya was firmly established. This opened the gate in reshaping the old Purāṇas in a new style incorporating new legends. The Vāyupurāṇa, referred to in the GC might have been such a creation.

Notes

1. This work, also known as Paratattvagaura, was published and edited by Haridas Das from Nabadvipa (West Bengal) in Gaurābda 458=1944 A.D. It is accompanied by a commentary, named *Prabhā* by Ramnarayan Goswami.
2. The Vāyupurāṇa, Vol. II, Preface, Bibliotheca Indica Series, Calcutta 1888, p. 1.
3. *gītyā pavamāna—proktaṁ purāṇaṁ papāṭha*—Harṣacarita, ed. by P. V. Kane, 1965, Ch. III, p. 39.
4. A History of Indian literature, Vol. I, Pt. II, Calcutta, 1963, p. 485.
5. Vaiṣṇavism, Śaivism, and Minor religious Systems, Varanasi, 1965, p. 47.
6. Materials for the study of the Early History of the Vaiṣṇava Sect, Calcutta, 1936, p. 178.
7. The commentary takes the word *api* in the sense of 'worship'. It says—*api-śabdāt pūjāyā api saṁgraha śāstra kīrtitanasya prādhānyāt sākṣāt grahaṇam /*
8. The identification of Dhruvānanda cannot be justly established but for further information about him. There are three Dhruvānandas—one being the disciple of Śyāmānanda, another the founder of the Jagannātha image in the village named Māheśa, and the third, i.e., Dhruvānanda Brahmācārī born in the line of Gadādhara Pandit.
9. Kṛṣṇadāsa Kavirāja, the Bengali Caitanyaite biographer, says in his Caitanyacaritāmṛta (Ādi, 1. 12)—

mahāviṣṇuḥ jagatkartā māyayā yaḥ sṛjatyadaḥ /
tasyavatāra evāyam advaitācārya īśvaraḥ ||

Here Advaita is said to be the incarnation of Viṣṇu himself.

WULFILA AND INDO-EUROPEAN LITERARY TRADITION

SUBHADRA KUMAR SEN

Bishop Wulfila (311-382/383) occupies a unique position in the history of the Gothic people. He not only gave them a new religion—a new attitude to life, but also transmuted their oral literature into written literature by devising an alphabetic system. It was he who translated for the benefit of his compatriots considerable portions of the New Testament. Thus he saved the Goths from complete oblivion. Viewed from this angle, the Gothic Bible, the only connecting link between the Goths and posterity assumes considerable linguistic, social and cultural importance. The present paper seeks to interpret some characteristic idioms found in Wulfila's Bible.

It is common knowledge that in the Gothic Bible the semantic difference between 'marked' and 'unmarked' character of words is indicated by a curious variation of number and/or gender. Among the words showing this characteristic are *himins*, *þiuda*, *boka* and *guþ*.

Himins (a masculine a-stem noun < IE o-stem) is used in two distinct senses (i) sky and (ii) heaven, i.e. the abode of God. The first sense is conveyed by the plural. There are, however, one or two instances where we find the singular forms instead of the unexpected plural forms.

The word *þiuda* (a feminine o-stem noun < IE ā stem) is likewise used in two clearly distinct senses (i) 'people, nation, tribe' and (ii) non-Christians, heathens. Needless to say that the second concept is a direct corollary of the conversion, which created the necessity for two distinct terms to highlight the difference between Christians and non-Christians. The difference was expressed by using the singular forms in the first sense and the plural in the second.

Boka (a feminine o-stem noun < IE ā-stem) has two different meanings: (i) 'a letter of the alphabet' and (ii) 'epistle, book, the Scripture'. Cf. English letters. Here, too, the semantic distinction is conveyed by a variation of the number. The singular is used in the first sense and the plural in the second.

There is, however, another word *mel* which in the plural has the specialized meaning—'the Scripture'. In singular the word means

'time, season and hour'. This word is usually connected with Hittite *mehur*, 'time'. If the equation is accepted it is evident that the Gothic singular form preserves the primary meaning of the word. The semantic development of the plural of *mel* is complicated and involved.

The word *guþ* (a masculine a-stem noun < IE o-stem) expresses two distinct concepts : (i) Christian God and (ii) pagan god. In this case the semantic distinction is brought about by variation in both gender and number. The Christian God is masculine singular whereas the pagan god is neuter and plural. Another interesting feature of this word is that in the Gothic Bible the word invariably occurs in an abbreviated form when used in the first sense. Similar abbreviation is noticed in the use of *Xristos* 'Christ' and *frauþa* 'lord'.

At this point let us take a comparativistic attitude and juxtapose Wulfila's version with the Greek version. *Himins* is used for Greek *ouranos* and it is used indiscriminately for 'sky' and 'heaven'. For *þiuda* the Greek version has *ethos*, a neuter noun, which has a remarkably matching semantic distinction : (i) singular—'a body of men, a race, a tribe' and (ii) plural—'Gentiles i.e. all nations except the Jews and the Christians'. The first sense of *boka* is expressed in Greek by *gramma* and the second by *biblos*. For *guþ* the word in the Greek version is *theos*.

It is evident that Wulfila did not follow his Greek original slavishly. The resemblance between *þiuda* and *ethos* is not accidental and extends beyond the Graeco-Germanic domain. Such a twofold classification of mankind (i) our own people and (ii) the rest is a Hebraic tradition. The Jews called themselves *Benim Yisrael* 'Sons of Israel' and others were *goyyim* 'the outer nations'. Similarly we have Greek *Hellenes* and *Barbaroi*, Sanskrit *Arya* and *Mleccha* or *Barbara*, Slavic *Slavisk* and *Niemets* etc. The interesting point is that where Wulfila had choice he used separate terms for separate semantic concepts. Thus in Wulfila we find *airus* 'messenger' and *aggilus* 'angel' whereas the Greek version has *aggelos* for both.

From the evidence presented above, it is obvious that Wulfila used different forms of these words to demote a semantic opposition of 'marked' and 'unmarked' nature. In some cases the plural form is semantically marked, in one instance the singular is semantically marked and in one instance the masculine is semantically marked. And at this stage one regrets the paucity of the available Gothic

material which is a great stumbling block in the way of building up a comprehensive theory. Considered in isolation this novel way of designating semantic variations is a remarkable to us *de force* of Wulfila. But is it an isolated phenomenon? Would Wulfila indulge in the luxury of individual mannerism when his objective was to make the New Testament available to his compatriots? Certainly he would speak to the common man in the common language and not in the language of the elite. In Hermann Guntert's term he would speak in 'the language of men' and not in the 'language of gods'. It is not uncommon that gradual semantic modification develops within a group of synonyms. As has been cited by Guntert and Watkins from the Śatapatha-Brāhmaṇa :

haya bhutvā devān avahad vāji gandharvān
arvā asurān aśvo manuṣyān

(as *haya* he carried the gods, as *vajin* the *gandharvas* as *arvan* the *asuras*, as *aśva* men, translation by Watkins).

Watkins further observes : The Semantic opposition is *aśva* : *haya*, *vajin*, *arvan* ; the unmarked term is the normal inherited Indo-European word for "horse" (Lat. equos).

But what we find in Wulfila is something entirely different—he uses a particular word in more than one sense by altering either the number or the gender. In Vedic Sanskrit oxytone may or may not be phenomonic : *ap-ās* 'active' but *áp-as* 'work' ; but *rakṣás* (masc.) and *rákṣ-ás* (nt) demon. Even though the reflex of the Indo-European free accent did not survive in the Germanic languages after the operation of Verner's law, the Vedic examples are significant. Apart from these we have other similar usages in Vedic. *Dyaus* in singular means 'heaven' but *dyāvā* (dual) means 'heaven and earth'. Thus *Vṛtrá* masc. sg. 'the name of the great demon killed by Indra' is used in the nt. plural in the sense of 'enemy, foe, hostile host'. In an entirely different context Benveniste refers to the Greek word *heresē* which in the singular means 'rain', or 'dew', but in the plural *heresai* 'young animals'. In our opinion these words from far-flung languages are not freaks but a system ; and a careful examination of the historical Indo-European languages would prove that it was a stock-in-trade of the primitive Indo-European bard.

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